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ABSTRACT

A practicum program was developed and implemented to improve narrative writing skills, composition skills, and related attitudes among the targeted second grade students. Objectives for the program were for: 75% of the students to increase their narrative writing skills by at least one proficiency level; 75% of the students to increase their writing composition success by at least one proficiency level; and to increase positive attitudes toward writing by 20%. Strategies chosen to solve the problem included integrating word processing techniques, graphic organizers, and art into the process approach to writing. To prove that the writer's solution strategies worked, the targeted students' pre- and post-writing attitudes surveys were evaluated and compared. The writing prompt pretest and posttest samples were assessed using a rating scale to measure narrative writing skills and a scoring rubric was used to measure composition skills. All the program objectives were met with the target group improving in all areas. (Includes six tables of data; contains 33 references. Appendixes include a writing attitude survey, narrative writing prompt, rating scale for narrative writing, scoring rubric, writing process poster, writing workshop poster, guided lesson plan, narration criteria worksheet, narration revision checklist, Arrow map, Donut on a Napkin map, narrative writing results, writing composition results, writing attitude survey results, and a software evaluation form.) (Author/CR)

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IMPROVING NARRATIVE WRITING SKILLS, COMPOSITION SKILLS,
AND RELATED ATTITUDES AMONG SECOND GRADE STUDENTS
BY INTEGRATING WORD PROCESSING, GRAPHIC
ORGANIZERS, AND ART INTO A PROCESS
APPROACH TO WRITING

by

Sheryl A. Gallick-Jackson

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A Final Report submitted to the Faculty of the Fischler
Center for the Advancement of Education of Nova
Southeastern University in partial fulfillment
of the requirements for the degree
of Master of Science

An abstract of this report may be placed in the
University database system for reference.

December, 1997

CS 216.353

Dedication

I would first like to express my sincerest heartfelt thanks to my parents who continued to support my efforts from the very beginning of the Master's Program. They were always there for me. They *knew* I could do it. Mom, thank you for your daily encouragement and for continually motivating me towards completion. Thanks too, for watching after your granddaughter. I couldn't have completed this without your help. Dad, thank you for all of your insight, for believing in me, and for every aspect of support. Next, I would like to thank my husband for all his encouragement from an ocean away. Thanks to my daughter for putting up without a mommy sometimes! Thanks to my other daughter for being a cooperative unborn passenger. I love you all so much. A loving thank you goes to my late Grandmother for leaving such rewarding footsteps to follow. I would also like to thank my practicum advisor for guiding me through this study. I dedicate my practicum to all of you for helping me get that great feeling of accomplishment. I finally did it!!

Abstract

Improving Narrative Writing Skills, Composition Skills, and Related Attitudes Among Second Grade Students by Integrating Word Processing, Graphic Organizers, and Art into a Process Approach to Writing.
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Descriptors: Elementary Education/Narrative Writing/Composition Skills/Writing Attitudes/Word Processing/Graphic Organizers/Art/Process Approach/Writing Workshop.

This practicum program was developed and implemented to improve narrative writing skills, composition skills, and related attitudes among the targeted second grade students. The objectives for the program were for 75% of the students to increase their narrative writing skills by at least one proficiency level; 75% of the students to increase their writing composition success by at least one proficiency level; and to increase positive attitudes toward writing by 20%. The strategies chosen to solve the problem included integrating word processing techniques, graphic organizers, and art into the process approach to writing. To prove that the writer's solution strategies worked, the targeted students' pre and post writing attitude surveys were evaluated and compared. The writing prompt pretest and posttest samples were assessed using a rating scale to measure narrative writing skills and a scoring rubric was used to measure composition skills. All the program objectives were met with the target group improving in all areas. Appendixes include a writing attitude survey, narrative writing prompt, rating scale for narrative writing, scoring rubric, writing process poster, writing workshop poster, guided lesson plan, narration criteria worksheet, narration revision checklist, Arrow map, Donut on a Napkin map, narrative writing results, writing composition results, writing attitude survey results, and a software evaluation form.

Authorship Statement

I hereby testify that this paper and the work it reports are entirely my own. When it has been necessary to draw from the work of others, published or unpublished, I have acknowledged such work in accordance with accepted scholarly and editorial practice. I give this testimony freely, out of respect for the scholarship of others in the field and in the hope that my own work, presented here, will earn similar respect.

Sheryl A. Gallick-Jackson
student's signature

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Practicum title Improving Narrative Writing Skills, Composition Skills and Related Attitudes Among Second Grade Students by

Integrating Word Processing, Graphic Organizers, and Art into A Process Approach to Writing

Student's name Sheryl A. Jackson Completion date Week of 11-24-97

Project site Buckner Boulevard Elementary School

Mentor's name Bonnie W. Cashey Bonnie W. Cashey
print signature

Mentor's position at the site Classroom Teacher Phone # (334) 344-3535

Comment on impact of the project (handwritten):

As a result of this project, the students demonstrated
an improvement in their attitudes toward writing
and in their organizational skills. The daily
activities provided an opportunity for them to
become comfortable with writing. Writing is no
longer an unpleasant task for them.

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CHAPTER I

Purpose

Background

The site of this practicum was an elementary school in a residential area of southeastern Alabama. It was one of six elementary schools in a county with a growing population of 20,000 plus residents. The school was 26 years old. The enrollment of the school for the 1996-1997 school year was 275 White, 185 Black, 17 Hispanic, three Native American, and 22 Asian Pacific for a total of 502. Some dependents of military personnel living off post attended this school. This school system was also comprised of three junior high schools, and one high school. A five-member board served as the policy-making body to over 5,000 students, 335 teachers, and 150 support personnel. The fiscal budget for this school system was approximately \$21 million.

The United States Government followed by the service sector were the primary sources of employment in this area. The students' socio-economic backgrounds varied from very low to high. There were 195 students receiving free lunch and 66 receiving reduced lunch at this school.

The school housed kindergarten through sixth grade. The students were grouped heterogeneously, except for those placed in special programs such as

speech/language, Title One, learning disabilities, and special education classes. The regular education classes had an average class size of 22 students. There were 12 students in self-contained exceptional education classes and a total of 90 students in various pullout programs. There was at least one computer in every classroom. The school was equipped with IBM and IBM compatible computers.

The school staff consisted of a principal, a guidance counselor, one speech/language teacher, a physical education teacher, a media specialist, four kindergarten teachers, four first grade teachers, four second grade teachers, three third grade teachers, three fourth grade teachers, three fifth grade teachers, three sixth grade teachers, a secretary, three instructional aides, four lunchroom workers, and two custodians.

The instructional staff was made up of 32 teachers, one male and 31 female, in which 19% either held or were working on advance degrees. Of the 32 teachers, three percent had less than five years teaching experience. The ages ranged from 28-60.

The writer of this practicum was a Master's Degree candidate. The writer held a Bachelor of Science degree in Elementary Education. The writer taught fourth grade for four years in a suburban area along the West Coast of Florida. The writer was chairman of the Technology Committee and was the corresponding secretary of the Social Committee. The writer taught fifth grade for one year and was a Title One teacher for grades one through three for one year in a rural area in eastern North Carolina. The writer was a member of the Science

Committee and was a member of the School Advisory Council. The writer was currently not employed by any school system. The writer was currently conducting this practicum in a second grade classroom in Alabama. The students in this classroom represented a broad spectrum of academic ability and emotional and social needs.

Problem Statement

As documented by Hicks (1993), teaching children to write compositions has been a goal of the American school system since colonial times. In recent years there has been an increase in the awareness of the need for writing, leading to a higher priority placed on writing. This should have resulted in steadily improving writing skills of our children, yet this has not generally been the case.

A ten-year study of the writing skills of 95,000 children was released in 1984 by the National Assessment of Educational Progress. It reported that "Sixty-two percent of the 17-year-olds, and 97% of the nine-year-olds wrote unsatisfactory informative prose." Similarly disturbing results were reported for imaginative material and even more alarming results for persuasive works (Hicks, 1993).

A more recent study from the National Assessment of Educational Progress substantiates the earlier study's conclusion that there was a definite reason for concern about the writing competency of the nation's students. This

concern is shared by Hicks (1993) and other experienced teachers who have observed poor and often deteriorating writing skills in their classrooms.

According to the Alabama Course of Study: Language Arts, instructional programs in Alabama schools must provide ways for students to express their ideas, to develop an understanding of and an appreciation for the writing of others, and to cultivate their own ability to compose effective pieces of writing. Elementary students are required to be provided opportunities to plan, to organize, and to compose various kinds of writing. Acceptable handwriting, spelling, punctuation, capitalization, grammar, and usage – as well as proofreading and editing – should be a part of the composition assignments.

Alabama Integrated Reading and Writing Assessment scores for the 1992-1993 school year indicated that second grade students at this site had significant decreases in scores. This assessment was a criterion-referenced achievement test. The assessment was designed to measure proficiency levels ranging from minimal to exceptional performance. Each student paper was rated independently for each dimension by two readers on a four-point scale ranging from a low of one to a high of four. The scores of the two readers were combined to yield an overall score ranging from two to eight.

The composition cluster assessed the student's ability to organize and develop a written response to accomplish a specific purpose or task.

Table 1
Percents for the Composition Cluster
Received by the Second Grades

<u>SCORES</u>	<u>1992-1993</u>	<u>1991-1992</u>
Exceptional Response (8)	2%	9%
Adequate Response (6 or 7)	29%	51%
Limited Response (4 or 5)	46%	31%
Minimal Response (2 or 3)	24%	7%
No Measurable Response	0%	1%

The conventions of writing cluster assessed the student's use of sentence structure, word choices, and writing mechanics.

Table 2

Percents for the Conventions of Writing Cluster
Received by the Second Grades

<u>SCORES</u>	<u>1992-1993</u>	<u>1991-1992</u>
Exceptional Response (8)	0%	6%
Adequate Response (6 or 7)	25%	61%
Limited Response (4 or 5)	51%	24%
Minimal Response (2 or 3)	24%	7%
No Measurable Response	0%	1%

Both clusters represented a significant decrease in scores. Forty two percent of the students scored 6, 7, or 8 in the Conventions of Writing cluster. Twenty nine percent of the students scored 6, 7, or 8 in the Composition cluster. The Composition cluster scores showed the greatest decline.

Based on the writing scores obtained on the 1991-1993 Alabama

Integrated Reading and Writing Assessment for Grade Two, there was a discrepancy gap of six proficiency levels. The students in the writing group displayed an actual writing ability level of two – minimal response, while the students, possessing the ability, should have been functioning on level six, seven, or eight – adequate response or exceptional response.

The Alabama Direct Assessment of Writing was a criterion-referenced achievement test that measured levels of achievement ranging from Level I (the student demonstrates a minimal grasp of the knowledge and skills that are fundamental for work at course or grade level) to Level IV (the student demonstrates superior performance).

Students' writing samples were evaluated using Alabama's Focused Holistic Rubric. A single score was assigned to represent a specified level of proficiency. This score reflected how successful the writer handled purpose, content, audience, and organization/clarity. The Alabama Analytic Rubric was also used for scoring writing mechanics, sentence formation/structure, and grammar usage. Each paper was scored independently by two trained readers in a writing assessment center. The scores of the two readers were summed to yield an overall score ranging from two to eight. If the scores of the two readers differed by more than one point, the paper was read by a master reader who functioned as the resolution reader. The paper's score, then, was the resolution reader's score doubled.

Descriptive, narrative, and expository modes of discourse were assessed.

Descriptive writing is defined as the clear description of people, places, objects or events using appropriate details. An effective description contained sufficient and varied elaboration of details to communicate a complete sense of the subject being described. Details used were usually sensory ones selected to describe vividly what the writer saw, heard, smelled, touched, and tasted.

Narrative writing is defined as relating a sequence of events which occurs over some period of time. Both what happens and the order in which the events occur are communicated to the reader. Effective narration requires a writer to give a clear sequence of events (fictional or non-fictional) and to provide elaboration for it.

Expository writing is defined as presenting reasons, explanations, or steps in a process. Logical order should be used with appropriate sequencing of ideas or steps in a process. Effective expository writing should contain a main idea, supporting details, and a conclusion.

The Alabama Direct Assessment of Writing test scores for spring 1996 indicated that fifth grade students had significant decreases in scores. Levels III and IV represent work that is adequate (Level III) and superior (Level IV). The goal was for all students, possessing the ability, to score within these two levels. For all modes of discourse, most students scored at Level II.

Table 3

School System's Percentage of Students Scoring
in Levels III and IV for each Mode

<u>Mode</u>	<u>1996</u>	<u>1995</u>
Descriptive	28%	53%
Narrative	33%	63%
Expository	22%	43%

As shown in the next table, all modes represented significant decreases in scores.

Table 4

School System's Differences in Percentage of Students
Scoring in Levels III and IV for each Mode

<u>Mode</u>	<u>1996</u>	<u>1995</u>	<u>Difference</u> <u>1996-1995</u>
Descriptive	28%	53%	-25%
Narrative	33%	63%	-30%
Expository	22%	43%	-21%

Narrative scores showed the greatest decline.

Table 5
Scores for the Various Test Modes Received
by the Fifth Grades at this Site

	<u>Descriptive</u>	<u>Narrative</u>	<u>Expository</u>
1996	17%	12%	13%
1995	19%	53%	13%
Difference 1995-1996	- 2%	-41%	0%
Difference from system	-11%	-21%	- 9%

The school average for the expository mode remained at 13 percent. Averages for the other two modes decreased. The narrative mode indicated a significant decrease. System averages were 28 percent for Descriptive, 33 percent for Narrative, and 22 percent for Expository. All three modes scored below system averages.

It was evident that students were not writing at a level expected. Their skills were not adequately developed. Students faced one or more of the probable causes including lack of modeling of writing, instruction with one emphasis, lack of writing involvement and motivation, poor attitudes towards writing, and home life. Also pertinent to the problem was the amount of time devoted to the instruction and practice of writing.

Based on the above writing scores obtained on the spring 1996 Alabama Direct Assessment of Writing for Grade Five, there was a discrepancy gap of two proficiency levels. The students in the writing group displayed an actual writing ability level of two – limited response, while the students, possessing the ability,

should have been functioning on level three or four – adequate or superior.

The target group of eight-second grade students was chosen based on their first grade Stanford Achievement Test scores. Students were chosen if they scored in the 60th percentile or lower in language. Language score percentiles were determined in comparison to all second graders across the United States who took the SAT test.

Table 6

Target Group's 1996-1997 SAT Language Scores

<u>Second Grade Student</u>	<u>Percentile Rank</u>
Student A	38.4
Student B	27.4
Student C	3.1
Student D	57.5
Student E	17.3
Student F	50.5
Student G	38.4
Student H	53.5

There were five girls and three boys in the target group. Of the eight targeted students, four were White, two were Black, one was Hispanic, and one was Asian Pacific. Three of the targeted students were on the second grade reading level. The other five targeted students were below the second grade reading level.

The targeted second grade students exhibited inadequately developed writing skills. Evidence of the existence of the problem included Stanford

Achievement Test scores. To prove that the writer's solution strategies worked, the targeted students' pre and post writing attitude surveys (Appendix A, p. 77) were evaluated and compared. The writing prompt (Appendix B, p. 79) pretest and posttest samples were assessed using a rating scale to measure narrative writing skills (Appendix C, p. 81) and a scoring rubric was used to measure composition skills (Appendix D, p. 83).

Outcome Objectives

The target group was eight-second grade students who were low performers on the Stanford Achievement Test. The purpose was for students to improve as writers, and for students to exhibit a more positive attitude towards writing. These improvements required active problem solving and higher level thinking skills.

Objective I

After a period of 12 weeks, 75% of the targeted second-grade students would increase their narrative writing skills by at least one proficiency level as measured by pre and post writing tests (Appendix B, p. 79).

Objective II

After a period of 12 weeks, 75% of the targeted second-grade students would increase their writing composition success by at least one proficiency level as measured by pre and post writing tests (Appendix B, p. 79).

Objective III

After a period of 12 weeks, the targeted second-grade students would

demonstrate a 20% increase in positive attitudes toward writing as evidenced by pre and post attitude surveys (Appendix A, p. 77).

CHAPTER II

Research and Planned Solution Strategy

Review of Literature

Children recognize that good stories have an interesting beginning, sequential development, and a point or climax. Yet, when they begin to write, their stories have an interesting beginning; however, the sequence of events becomes confusing and a climax is often lacking. Finally, the story abruptly stops, often with the triumphant words "The End." One task of educators is to foster the habit of good writing (Petty, Petty, and Becking, 1981). The review of literature shows a variety of strategies, techniques, and activities have been tried to help students improve as writers, and to help students exhibit a more positive attitude towards writing.

In 1995, MacArthur, Graham, Schwartz, and Schafer conducted an evaluation of a writing instruction model that integrated a process approach, strategy instruction and word processing. Their purpose was to develop writers who possess basic writing skills; flexible cognitive strategies for planning, writing, and revising; knowledge about effective writing for a variety of purposes; and increased motivation to use writing in their own lives. A comprehensive approach to writing instruction was chosen for the study. An approach that

provided a supportive classroom environment, meaningful writing tasks, and instruction in basic skills and writing processes. These goals are appropriate for all students. They take on special meaning for students with learning disabilities.

In the first year, the writers' sample of subjects included seven self-contained classes for elementary school students with learning disabilities. Nineteen percent were female and 40 percent were minority. Seven similar classes served as control sites. Twenty-seven were female and 46 percent were minority. In the second year, the writers' sample of subjects included five classes for students with learning disabilities. Thirty two percent were female and thirty seven percent were minority. Three classes served as controls. Thirty one percent were female and thirty eight percent were minority. Class sizes ranged from eight to fifteen students. Age in years ranged from 10.5 to 11.0. Teachers volunteered to participate in the study. Each classroom in the experimental group was equipped with four to six computers, or had daily access to a computer lab.

Teachers began the year with a basic writing workshop program. Writing workshop incorporated daily writing, student selection of specific topics, mini-lessons and teacher conferences, peer response groups, revising, and editing, and publishing. Also at the start of the year, teachers introduced students to the operation of the word processor and initiated regular keyboarding practice. At the beginning of the year, teachers encouraged (and some teachers required) students to write about personal experiences.

The peer revising strategy was introduced first. The planning strategy was

introduced second. Two personal narratives and two informative prompts were written and counterbalanced across time by randomly assigning prompts to the class for the pretest.

Students wrote both narrative and informative papers both at pretest and posttest. Students were given as much time as they needed at one sitting to complete the paper. They did not receive any assistance, nor were they permitted to use reference materials. The experimental students were randomly assigned to take the posttest with or without the computer.

All writing samples were transcribed on a word processor prior to scoring. Compositions were scored on an eight-point scale with one representing the lowest quality and eight the highest. Separate one-way analyses of variance by prompt were carried out for length, and quality of narrative and informative papers. All comparisons were clearly non significant (all $ps > .50$).

Analysis of covariance with pretest results as the covariate was used to compare the compositions written with and without word processing by students in the experimental group. Separate analyses were conducted for posttest scores on quality, length, and proportions of spelling, capitalization, and punctuation errors. No significant differences were found for any of these measures (all $ps > .09$). Consequently, these two subgroups of experimental students were combined for all further analyses.

Hierarchical regression analysis was used to evaluate the effect of the experimental treatment on the outcome measures. The independent variables, in

order of entry into the equation, were the pretest score, a dummy variable representing group, and the product of the pretest score and the dummy variable. The criterion variable was the posttest score. Including the dummy variable allowed a test for the difference on the posttest between two parallel regression lines, one for each group. This test is equivalent to analysis of covariance with the pretest as covariate.

T-tests were used for follow-up analysis to test whether each group improved from pretest to posttest. The quality ratings for the experimental group increased 1.10 on the narrative composition and 0.43 on the informative composition. For the control group, the quality ratings increased 0.50 on the narrative composition and changed minimally on the informative composition. The experimental group demonstrated significant gains on both the narrative ($t(110)=6.92, p<.001$) and the informative ($t(106)=4.70, p<.001$) writing tasks. In comparison, the control group demonstrated a significant gain on the narrative ($t(57)=2.72, p=.009$), but not the informative ($t(54)=.26$) writing task.

A significant effect of group on length of composition was found for narrative writing ($F(1,164)=4.038, p=.046$), but not for informative writing ($F(1,159)=0.589, p=.444$).

T-tests were used for follow-up analysis to determine whether length changed for each group from pretest to posttest. The experimental group demonstrated significant increases in length on the narrative ($t(108)=5.49, p=.001$) and informative ($t(105)=5.44, p=.001$) writing tasks. For the control

group, no significant difference in length was found ($p > .20$) for either writing task.

Separate regression analyses were conducted for proportions of spelling, capitalization, and punctuation errors. No significant effects of group were revealed for any of these measures. T-tests were conducted for each group. Significant decreases in spelling errors were found for the experimental group on the narrative ($t(102)=3.90$, $p < .001$) and informative ($t(105)=4.72$, $p < .001$) compositions, and for the control group on the narrative composition ($t(57)=2.61$, $p = .012$), but not the informative composition ($p = .740$). No significant differences were found on capitalization and punctuation for either group on either writing task.

Students in the experimental classes made greater gains than control students in the quality of both narrative and informative writing. Both experimental and control students improved during the year on quality of written narratives, but the gains made by the experimental group were twice as large. On the informative compositions, gains for students in the experimental classes were somewhat smaller than on the narrative compositions, but control students made no gain. For both narrative and informative writing, the effect sizes for the treatment were approximately 0.4 of a standard deviation.

The experimental group demonstrated significant improvement in spelling from pretest to posttest on both writing tasks, and the control group demonstrated

improvement on the narrative writing task. The overall rate of spelling errors for both groups remained high (16% to 19%), and no improvement was seen in capitalization or punctuation.

According to MacArthur, Graham, Schwartz, and Schafer (1995), it is possible that the emphasis of the curriculum on meaningful writing and development of cognitive strategies for planning and revising led teachers and students to de-emphasize mechanics or reduced the time available to focus on mechanics. Mechanics were taught as part of the writing process. The results suggest that more intensive instruction in basic writing skills is needed.

Two issues that are often noted as barriers to effective integration of computers are limited access to equipment and limited staff development. The current project addressed the general problem of technology. Students had adequate access to computers and teachers received staff development. The curriculum included instruction for students in keyboarding and word processing to ensure that limited computer skills would not interfere with their writing. The special power of word processing to support publishing was integrated with the emphasis of the process approach on communication with real audiences. The peer revising strategy was designed to capitalize on the editing capabilities of word processing.

Process approaches provide for regular writing on meaningful tasks, frequent response from teachers and peers, and routines that support a view of writing as a process involving planning, drafting, revising, and publishing. These

social and contextual supports help students understand the purposes of writing and the satisfactions to be gained from it. However, process approaches provide limited instruction in specific skills and strategies. Although some theorists argue that explicit instruction limits and distorts learning, considerable evidence indicates that students with learning problems, as well as many normally achieving students, do not develop effective strategies and skills for writing without careful instruction (Graham & Harris, 1994).

Helping students become independent learners who use strategies on their own and adapt strategies to new tasks is difficult. The combination of strategy instruction and a process approach, as in the current study, may be more effective than either approach in isolation. The current study does not support specific claims about which components of the curricular model were critical to its effectiveness. However, it does demonstrate the overall effectiveness of a comprehensive instructional model that integrated word processing, strategy instruction, and a process approach to writing.

In 1983, Graves was instrumental in redefining writing as not only a product, but also a process leading to the solution of problems. Though promising, the application of Graves' findings has not resulted in a significant improvement in the quality of children's writing. Calkins (1986) attributes this to educators having misinterpreted the stages of the writing process as discrete, linear steps rather than recursive over-lapping ones.

In addition, the writing process approach requires a different pace and

classroom structure than exists in most schools. Teachers trying to implement instruction in the writing process are faced with ever increasing time constraints. Calkins claims this is a reflection of the "one-draft-only mentality" of our schools and society. Frequent interruptions, overloaded curricula, scheduling needs of specialists, and general housekeeping routines, limit the ability of the teacher to provide the large blocks of uninterrupted time considered critical for student writing (Calkins, 1986; Graves, 1983).

If children are to become deeply invested in their writing, the classroom pace and structure must be adjusted to allow them the luxury of time. Sustained effort and craftsmanship require long blocks of uninterrupted time in order to perfect the processes of probing, experimentation, dialogue, and reflection. Children can take control of their own writing processes when a predictable time for writing has been set. They think about and plan their writing even when not directly on task; they have time to rehearse, investigate new information, take notes, collaborate and negotiate with their peers, plan revisions, clarify their purpose and publish their work. (Calkins, 1986; Graves, 1983).

Due to their pioneering work in writing with young children, Graves, Atwell, and Calkins are generally credited with bringing the "process movement" to the elementary and middle schools. Through Graves', Atwell's (1987) and Calkins' (1986) observation of the overt behaviors of young writers they identified several important sub-processes which include topic choice, rehearsal, composing, reading and revision. Graves is careful to point out that there is not

set order to this writing process, but it is highly personal to the individual author and piece. Calkins elaborates on this point adding that "the shifts between rehearsal, drafting, revision, and editing occur minute by minute, second by second, throughout the writing process" (Calkins, 1986, p. 18).

The implications of these findings for the teacher of writing are varied. To begin, the teacher must give up control. No longer can teachers "plan" for rehearsal on Monday, drafting on Tuesday, drafting and revision on Wednesday and Thursday, editing on Friday. What the teacher does need to plan, however, is how to structure writing time so children know what to expect and can take control of their own writing processes. This is accomplished by the establishment of routines and guidelines for each stage of writing, thereby freeing the teacher from directing activities and allowing time for circulating, listening, and conferencing.

In addition, Graves (1983) proposes that teachers let children choose their topics as often as 80% of the time. In doing so, the writing not only becomes more personally meaningful, but also begins the process of revision in relation to topic selection and aids in the development of basic decision-making skills. Graves cautions that relying on teacher-assigned topics will lead children to parrot their teacher's voice. There is much to gain from allowing children to choose their own topics.

Writing workshops often begin with a meeting of the entire class, during which time the teacher presents a mini-lesson. A mini-lesson might include a

writing tip, a revision strategy, a new classroom procedure, or an example of good writing (Calkins, 1986). After a mini-lesson, students are given the time to draft, revise, edit, and confer with their peers and/or the teacher. The writing workshop usually ends with a whole class meeting (Atwell, 1987; Calkins, 1986; Graves, 1983). This is the time for individuals to share writing problems or triumphs. Atwell (1987), Calkins (1986), and Graves (1983) recommend writing conferences be conducted between student and teacher, student and student as a means of helping children discover what they don't yet know and build on what they do know about their writing. Both Calkins (1986) and Graves (1983) point to the writing conference as the heart of teaching writing as a process.

Writing workshop provides that personal touch which allows the children to write about what is real and alive to them (Calkins, 1986). It is in this positive atmosphere that the writing workshop begins. The teacher becomes a facilitator, resource guide, listener, and encourager. A climate of trust in classrooms must be created and developed. As teachers respond positively to students' writing, this will motivate children to write more. (Calkins, 1986). Theory and research support the writing process approach. The writing process approach is consistent with understandings of how children learn and it is believed the quality of students' writing will improve when teachers instruct writing using writing process methods (Goodman, 1986; Graves, 1983).

The process approach is called "the most effective way to teach writing" (U.S. Department of Education, 1986) in What Works: Research about Teaching

and Learning. In the process approach, writers move through a series of stages as they compose. They choose their own topics, define their purposes and audiences, draft and revise based on feedback from peers, and even publish their work in some form. This places the emphasis on the process, not the product, thereby encouraging the interaction of thinking, writing, and reading.

Dahl (1988) conducted a study to report a two-phase ethnographic investigation that documented learner activity in peer conferences. The opening phase, spanning the initial ten weeks of school, investigated what happens in peer conferences and what relationship that activity had to the instructional context of the writing workshop. The second phase of the study, conducted during a ten week period in the middle of the school year, focused on three aspects of peer conferencing: (a) the extent and nature of talk about revision in peer conferences, (b) the expectations that learners have when they conference with a peer, and (c) the extent to which revision occurs after peer suggestions are made. The learners in this study were 24 fourth graders in a self-contained classroom in a suburban public elementary school.

The writing workshop was conducted each day in the 50 minute time period after lunch and followed a set pattern. The workshop opened with a ten-minute mini-lesson demonstrating an important aspect of writing, followed by a ten minute sustained writing period and an additional twenty-minute period for peer conferencing and continued writing. The period closed each day with a ten-minute "share" meeting in which the whole class listened carefully as two or

three learners read their pieces and class members responded by asking questions and telling what they liked.

Peer conferences were introduced on the fifth day of school and continued throughout the school year as a vehicle for sharing and receiving help on one's writing. The guidelines established for peer conferencing in the classroom included three kinds of conferences: a *Let's Share Conference* where learners shared their drafts and told what they liked, an *I'm Stuck Conference* where learners discussed and solved problems in their drafts, and a *Spelling Conference* where learners helped each other spell difficult words.

In phase one, data gathering included field note accounts and, since peer conferences were tape-recorded, transcripts of recorded peer conferences. Interview data and documentation from student writing folders were also utilized. Data analysis indicated that peer conferences corresponded closely to the instructional context of the writing workshop and that conferences changed from an initial preoccupation with sharing to a concern about revision.

In phase two, strategies for gathering data included not only recording field note data from each classroom session but keeping track of each conference, whether it was recorded or not. Analysis of mid-year conference transcripts indicated that 38% of conference interactions directly addressed revision and an additional 26% dealt with information about the written draft. Analysis of writing folders documented 46% of suggested revisions were subsequently made. Learners used the models provided in the writing workshop and came to expect

substantive help from their peers. ✓

Pelletier (1992) investigated the theoretical basis of the writing process and described the possibilities of word processing as a tool supporting it. The supporters of the recursiveness of the writing process believe that the different tasks involved in writing can be used at any stage of the process since it is recursive. Expert writers often alternate between planning and production because each one compliments the other. Thus, it is not a one-way activity that leads to production. Writing skills have traditionally been taught according to two distinct approaches: the reductive approach and the hollistic approach. In the reductive approach, writing is taught by insisting on isolated mechanical skills, while the hollistic approach considers the process as an entity.

Here is a brief description of the different steps of the writing process: Planning is the pre-writing step where the text to be produced is being planned. It can take place at the beginning as well as during the writing period to adjust to what is anticipated to come in the next lines as an aftermath. Composition is the step where words and inspiration go free. That is generally achieved by keeping in mind the original planning of the story. Revision consists of establishing which corrections will have to be made to the first draft (pre-final) of the text. It consists of correcting the ambiguities, the sentence or paragraph structure, and playing with words. It is possible to make all kinds of modifications. Edition or publication is the step where one works on the editing of a document in order to make its communication possible and, perhaps to benefit from a second look. The

text is recopied with the original intention of the text in mind. This is the step where the text is polished into a final product in order to make it presentable. If it must be published, it must translate what the author wanted to produce according to the plan he had made at the beginning. For many authors, the last step is integrated with the revision step.

According to Pelletier (1992), a close look at the writing process reveals certain elements that represent difficulties for the young writer. The use of a tool such as the word processor represents an attractive solution to lighten the writing task. The development of word processing allows a greater coming together of the various characteristics of the writing process. Many researchers have recognized numerous advantages to word processing. It is a powerful tool for learning, improving writing skills, helping learners who have difficulties as well as special students. It has been demonstrated that it makes the revision process less arduous, increases creativity and self-confidence, makes students more at ease with writing, increases control of the development of skills in literature, helps develop listening skills, etc. In the revision sub-process, the software package offers a multitude of possibilities for erasing, insertion and rearrangement. For the correction sub-process, the same ease has been observed for adjustments to the grammar, spelling and vocabulary. The writer creates and destroys without the fear of the permanence of the text. In terms of publishing, it is possible to experiment with spacing, justification, type, style and size of characters, and page numbering. Word processing is a tool that stimulates one to

write more as well as more often. The computer prevents muscular fatigue to handwriting. It eliminates the physical aspect of recopying by its capacity to modify a text and to publish a final copy.

The introduction of word processing can prove itself very useful at the revision stage. It is important to create a continual revision mood, to write often, and as a teacher, to give feedback. Word processing can facilitate revision but cannot teach it. Thus, environment and the pedagogical act becomes so important that no tool could possible replace them.

Dickinson (1986) conducted a study. The purpose was to study ethnographically the introduction of a computer in a process-oriented writing program of a first-second-grade classroom to understand the effects of using a computer as a writing tool. The classroom was a first-second-grade room in a magnet alternative program located in a working class area of an urban school system. The class was mixed racially, ethnically, and economically. There were 21 children in the room, 8-second graders and 13 first graders.

Paper and pencil work during writing time was nearly always done by children writing their own pieces and was accompanied by minimal talk about writing. Collaborative work at the computer created a new social organization that affected interactional patterns. In contrast to interaction usually found during writing time, collaborative writing sessions included considerable talk conducive to planning, self-monitoring and responding to what was being written. The computer, as a tool for collaborative writing, led to analysis of the emergence of

cooperation and collaboration during the semester, consideration of the role of the computer in fostering this development, and analysis of the effects of collaboration on interaction during writing time.

According to Simic (1994) two factors contributing to the change in writing instruction have been the research investigating the way writing is taught and the computer. Research has found that most teachers are concerned with the final product of writing, but have little understanding of the process that successful writers use in creating that product (Hansen, 1987; Harste et al., 1988). Traditionally, students have been asked to produce compositions on demand, with little guidance on how to work through the steps that quality writing requires.

No longer are computers seen as tutors and drillers. Instead, educators now are realizing that the computer is a tool for handling information. A word processor can become the centerpiece for an effective writing curriculum, encouraging early language production and providing students with opportunities to connect reading and writing. When integrating advanced technology into any curriculum, the teacher must always be aware that it cannot "eliminate" problems. But with instruction and support from the teacher and peers, most students can experience success in writing through the use of a word processor (Bright, 1990).

Word processing allows rapid alteration and manipulation of the text, helping writers sustain the mental images they are trying to capture while experimenting with language. With word processing, it is the learner who exerts control both in using the computer and learning to write. The word processor has

helped realize the advantages offered in process writing. Rewriting and revising are allowed to be the cognitive processes they should be, rather than being dominated by the mechanical aspects of actually putting words down on paper. Besides revising and editing, another benefit of using a word processor is that multiple copies can be printed for reading in peer-editing groups. Final copies can be displayed on a writing bulletin board or in a collection of writings, without any student's work showing to a disadvantage because of poor handwriting. And the additional benefit to the student is having an audience other than the teacher (Bright, 1990).

The word processor offers great advantages but also makes great demands. The teacher must invest a great deal of time in teaching students how to use it. Teachers must become familiar with the word processor themselves before using it in the classroom. Teachers must also decide when and how to give word processing instruction to their students. If the entire class will use the word processor, the ideal situation would be to place the teacher at the front of a computer for whole-class instruction. A peer tutoring system can also work. The key is as much "hands-on" activity as possible (Bright, 1990).

Computers do not change the central role of the teacher. If writing and revision can be made easier through effective writing instruction and word processing, then, hopefully, students will begin to write because they enjoy it rather than because they are forced to do so.

Chambless and Chambless (1994) conducted a study to compare the

effectiveness of computer-based instruction in grades K-2 to traditional instruction on the reading and writing achievement of second graders. The Writing to Write (WTW) program was installed in 34-second grade classrooms in Mississippi. Writing to Write is a computer based program that enhances process writing. Each experimental classroom was networked with six computer workstations where WTW courseware programs were incorporated into the instructional process. The number for both groups was 1,194 students.

Academic achievement outcome-based measures selected for the research study included a portfolio measure (pre- and post-writing samples) and pre- and post-Stanford Achievement Test reading scores. Writing samples were collected by asking second graders to write in response to a story starter activity. Students were given 15 minutes to complete a story after the beginning of a situation was read aloud to them.

The pre- and post-writing samples were evaluated using the University of Mississippi Writing Assessment Instrument, a holistic scoring procedure. Each writing sample was compared to criteria describing six levels of writing development. Students in the same strata (socioeconomic status, race, and sex) were compared on second grade outcome-based measures of writing and reading. Statistical analyses (ANCOVA'S) of the data yielded significant differences in favor of the WTW groups on writing performance. By the end of second grade, the experimental students' writing represented imaginative, interesting, well-developed stories with a logical flow from the beginning to the end. Further

statistical analyses revealed that all six WTW groups had educationally significant effect sizes in writing.

Significant statistical differences in reading achievement were obtained in favor of the WTW groups over the control groups for low SES black males, low SES white males, low SES black females and high SES white females. In addition, educationally significant effect sizes were obtained for each of these groups.

According to Chambless and Chambless (1994), The Writing to Write program is an effective educational tool for significantly improving academic achievement of second grade students. Teachers using this computer-based writing curriculum in their classrooms were better able to meet the writing reading needs of their diverse student populations than teachers using traditional instructional methods and materials.

When total reading raw scores were converted to national percentiles for subjects who are at greatest risk in the United States, the results become even more meaningful to educational practitioners. For example, the average low SES black male who used technology in grades K-2 scored at the 40th percentile in reading achievement at the end of second grade as compared to the 22nd percentile for students who had not used technology. Similar results were obtained for low SES black females (45th vs. 27th percentile) and low SES white males (56th vs. 31st percentile).

Computer-based technology is a powerful tool for teachers to use to

motivate students and help them develop higher level thinking skills. It adds a new dimension to thinking and learning (D'Ignazio, 1987).

According to Houston (1991) Writing to Write (WTW), a computer-based program that enhances process writing, is designed to provide instructional activities and materials that will allow students individual creative freedom to learn within wide parameters of structured learning tasks. Developed by Dr. John Henry Martin, WTW is a multi-sensory writing program that involves students as writers, readers, editors, and thinkers. Based on research and sound theories of language learning, the program includes components of whole language and process writing as a means of learning written language. Children learn to read and write through a constant process of refinement, in surroundings where language is being used to communicate. They write about self-selected topics for the purpose of communicating.

The WTW computer courseware provides a challenging practice of the specific skills involved in the creation of a piece of writing. Graphics and auditory prompts encourage writers to draw upon their personal knowledge for the substance of their compositions. A voice synthesizer allows writers to hear their words as they are read by the computer voice. At the same time, writers can see (and read) their written words on the screen (Houston, 1991).

The interactive use of the computer helps students recall, order, and organize content materials to be used in a meaningful way in their writing. In addition, the writing activities in WTW encourage the development of problem

solving skills. Each unit presents a problem for children to solve through the use of different organizational strategies.

The comprehensive structure of WTW also provides for cooperative learning. Students work with partners and in collaborative groups to share ideas and skills as well as to get immediate feedback. Accountability is addressed as the program shifts responsibility for learning and assessment from the teacher to students (Houston, 1991).

Eldredge and Baird (1996) conducted a study to compare the writing products of first grade children who were taught to write using a structured writing approach with the writing products of first grade children taught to write using the holistic approach.

A classroom for each treatment condition was randomly selected. Forty-nine first grade students from two elementary schools became the subjects of the study. There were twenty-six students in the structured group and twenty-three students in the holistic group. The children in the structured writing program were given phonemic awareness and phonics training so they could spell words by sounds before involving them in holistic writing experiences. The children in the holistic program were involved in holistic writing from the start so they could discover the important elements of written language through their writing experiences.

An analysis of children's writing revealed that children in the structured program (a) wrote more words, different words, difficult words, and composition

units, (b) spelled more words and different words correctly, and (c) wrote better overall compositions than did their counterparts in the holistic program.

Several conclusions can be drawn from the study. Some skills teaching may enhance the effectiveness of holistic writing approaches used with young children. Phonemic awareness and phonics training probably enhance the quality of young children's writing. Another conclusion that can be drawn from the study is that spelling improvement is enhanced when children are provided with phonemic awareness and phonics training. Helping children spell words by sounds may motivate them to include more different and more difficult words in their writings.

Knudson (1991) conducted a study to investigate the effects of four kinds of writing experiences over time on students' narrative writing. The writer's second objective was to measure the degree of improvement, if any, in student writing with practice in each of the writing experiences examined in the study. A third objective was to ascertain the degree to which students transfer fluency gained from these experiences to other, similar writing tasks.

The writer's sample of subjects was drawn from an elementary school in an urban sprawl area of southern California. Subjects were all students in Grades 3, 4 and 5 (N=387). Fourteen classrooms participated in the study. Students were randomly assigned to treatment groups within grades. Although there were originally 387 students, complete data were available for only 221 students. Of these 221 students, 90 were in third grade, 64 in fourth grade, and 67 in fifth

grade.

Ninety-five students were above-average readers and 126 students were below-average readers. A four (treatment) by two (reading level) analysis of variance (ANOVA) was conducted on the sample. There were no statistically significant differences ($\alpha=0.05$) in the number of above-average and below-average readers between or among treatment groups, demonstrating that the pretreatment performance level of the groups was statistically equivalent, $F(3,217)=0.09$, $p=0.9629$.

Treatment Group 1 was asked to write in response to a description of a picture. Treatment Group 2 wrote in response to a second picture, while Treatment Group 3 wrote in response to a story starter. Students in Treatment Group 4 wrote in response to a prompt: "Write a story about anything you want." Students were given opportunities to write for 14 days, 20 minutes per day. Two writing samples were collected, one at the end of the study and one 2 weeks after its completion.

The assessment consisted of as holistic scoring procedure. Scores ranged from Low (one point) to High (six points). A repeated measures analysis of variance was specified, with three between subjects effects (treatment, grade and reading level) and one within-subjects effect (time of measurement).

Means (standard deviations) for each free writing experience are Group 1 Average 5.13 (1.92), Group 2 Average 4.69 (1.83), Group 3 Average 4.91 (2.02), Group 4 Average 5.05 (1.70). Means (standard deviations) by grade are Grade 3

Average 4.22, Grade 4 Average 5.03, and Grade 5 Average 5.86. Means (standard deviations) by reading level are Above Average 5.83, Below Average 4.28.

The results of the repeated measures analyses of variance revealed a statistically significant main effect for grade. Main effect for writing experience was not significant. There was a marginally significant interaction effect for treatment by grade.

The findings in this study support the claim that above-average readers are usually good writers and below-average readers are usually poor writers. The results of this study indicate that students improve with practice in a given writing experience to a certain point and then do not improve significantly thereafter. It was expected that grade level differences in performance would occur.

According to Knudson (1991), these results suggest that students improve in their writing both from the practice they receive and because of their increased familiarity with the types of writing assignment they receive. Students need instruction, activities, and tasks that are both different and difficult enough to permit new learning to occur. Students may need many different kinds of writing experiences since no one topic or prompt is sufficient for a writing program. Children benefit from practice writing, regardless of writing condition, as demonstrated by the improved scores during the course of the study.

Edwards and Juliebo (1989) conducted a study to investigate children's first draft writings of two texts. One writing was on a topic of their own choice

and one writing was chosen by the classroom teacher. The subjects of the study were a group of eleven children, eight boys and three girls, in one classroom in a large public school system. The entire study followed the children from grade one to grade six. Only the texts from grades one to three have been examined.

The texts were collected in May of each year as the children passed from grades one to three. The students were asked to write two stories. For the first task they were asked to write a story on anything they wished to write about, and for the second task they were asked to write a story on a topic chosen by the teacher. In grade one this topic was "Volcanoes," in grade two it was "The Scariest Moment," and in grade three, "Underwater Adventure." In all cases the students had engaged in considerable research and discussion on the topic before they began writing. These texts were analyzed for syntax, according to T-unit and embedding ratio, cohesion, focusing on personal pronouns, collocation and reiteration, and for story structure, using exposition, complication and resolution as the criteria. Analysis of variance using a two by three repeated measure design was applied to the data for syntax and cohesion. The three level factor was grade, and the two level factor was task. Audiotapes of interviews with the children and the teachers were also analyzed to reveal the nature of the teachers' and children's perceptions of the writing tasks (Edwards & Juliebo, 1989).

A majority of the stories in grades one and two could be classified as stories, and by grade three all of the texts met the criteria. No significant difference was found between the writing completed for the two tasks except in

the area of cohesion. In the directed writing the children used a significantly greater number of collocative ties and in the non-directed writing a significantly greater number of reiterative ties (Edwards & Juliebo, 1989). Reiteration is the simple repetition of vocabulary throughout the text, while collocation is the use of related words. "On the average, children increased the proportion of lexical cohesion in writing from roughly 18 percent to nearly 50 percent of cohesive ties employed" as they move from first to second grade (Rentel & King, 1983, p. 164).

It appears from the data that when children write a story from their own choice of topic, using their own vocabulary and their own schema, the expression of that schema is more limited than when they write on a topic chosen by the teacher. A directed topic is usually associated with some teaching - with some discussion. The children have greater exposure to the vocabulary and ideas of the topic, thus creating, perhaps, a more substantial schema. The child appears to access the vocabulary and schema of the learning topic, and this is reflected in the use of collocation rather than reiteration as a means of creating cohesion in the text (Edwards & Juliebo, 1989).

The research of Edwards and Juliebo (1989) supports the developmental assertions of Rentel and King (1983) in that children increase their use of lexical cohesion as they progress through the grades. Cohesion in text refers to the linking of elements of a discourse through a range of possible ties including reference, substitution, ellipsis, conjunction and lexical cohesion. However, the

study does not support the premise that children write better stories (according to the criteria selected for analysis) when choosing a topic rather than being assigned one. The children in our study showed no significant difference between tasks on any of the criteria used for analysis, except for the use of reiterative and collocative ties in cohesion. However, the interviews with the children overwhelmingly showed that children prefer to choose the topic for their writing. It appears to give them greater ownership, satisfaction, pride, and motivation, but when children write on their own topics they do not necessarily produce better quality texts. Children need to work on their own texts as well as be guided by the teacher.

According to Hyerle (1996) teachers and students are using a wide array of visual tools to construct, organize, assess, and convey knowledge. Semantic maps for brainstorming, graphic organizers for structuring information, and simple maps in textbook lessons are just a few tools being used to activate student learning. Thinking Maps are designed to help K-12 students generate and organize their thoughts and ideas, either on paper or by using the software, and construct simple to complex mental models. Each Thinking Map corresponds to a single thinking process.

The circle map helps define words or things in context and presents points of view. The bubble map describes emotional, sensory, and logical qualities. The double bubble map compares and contrasts qualities. The tree map shows the relationships between main ideas and supporting details. The flow map

shows events as a sequence. The multi-flow map shows causes and effects and helps predict outcomes. The brace map shows physical structures and part-whole relationships. The bridge map helps to transfer or form analogies and metaphors.

Teachers are trained to introduce all eight maps as a related set of tools for context learning. They then show the students how to use these maps as needed, isolated or together. Teachers can do this in a short time because each map is a concrete tool rather than an abstract definition. The graphic configuration of each Thinking Map becomes more complex as student thinking improves and content knowledge is enriched over time.

In North Carolina, many elementary and junior high schools that had introduced the Thinking Maps schoolwide in 1993-1994 found significant increases in holistic writing test scores over successive years. Researchers also have found that students enjoy using graphics for networking information and constructing knowledge, thus shifting from passive to interactive learning.

According to Hyerle, (1996), in this age of information overflow and networking, students must be able to use multiple strategies to solve complex problems. In language arts, for example, students are evaluated through their responses to complex reading selections or to an array of writing prompts. Most students are not prepared for these layered tasks, and it is particularly difficult to find strategies that work together to develop higher-order thinking skills. By learning how to use Thinking Maps together, students show they can persevere and not give up in mid-problem.

Thinking Maps help students develop their thinking processes and their ability to organize ideas, improve the quality and quantity of their writing, and also motivate students to learn. The maps benefit the teachers by helping them organize content and assess student learning.

In one elementary school in North Carolina, Thinking Maps were used to prepare students for the state's first annual assessment of fourth graders' writing in February 1993. In 1992-1993, the fourth graders' writing scores averaged 35 percent – the highest of the 11 district schools tested, and more than 11 percent higher than the district and state averages. In 1993-1994, the fourth graders did even better. They finished first with a 51 percent average. This compared to 31 percent and 34 percent, respectively, for the district and state averages. This past year, the fourth graders' average shot up to 61 percent. Rarely do scores increase so significantly three years in a row.

Moore and Caldwell (1993) conducted a study to make a transmedia comparison of the effects of planning activities involving drawing and drama with the effects of a planned teacher-run discussion on the quality of narrative writing by second and third grade students. Subjects consisted of sixty-nine students, the entire population of two second- and two third- grade classes in an elementary school in the Rocky Mountain region. The student population is predominantly lower middle-class Caucasian. The students were divided into one control and two experimental groups, mixing gender and grade levels in a stratified, random designation. The three groups will be referred to as (a) the drama group (n=22),

(b) the drawing group (n=20), and (c) the discussion or control groups (n=21).

All groups were given a writing assignment on the topic "Fears" as a pretest. Planning consisted of a 15-minute teacher directed discussion followed by a 30-minute composition. A one-way analysis of variance (ANOVA) was computed comparing the pretest scores of the drama, drawing, and control groups to establish that there was no difference in writing ability among the three groups at the outset of the study. These results indicate that there was no initial difference in writing ability. A three-point attitude scale was used at the end of the study to determine if changes in attitude toward the planning activities and the writing process activities could have impacted the quality of the students' writing.

The study investigated treatment effects for three groups using a 15-week multiple group repeated measures design. The control group and the experimental groups remained constant. After the treatment each week, a sample of each student's writing was evaluated. The teachers rotated among treatment groups weekly to eliminate the teacher variable.

During the initial preparation period, all participants were encouraged to choose their own writing topics; however, prompts were available to those students who needed them. Thirty minutes were allocated daily for drafting, responding, reviewing, and editing their work. Throughout the study, the students' compositions were returned to them in published form, typed and bound in class books of stories. These books then provided a focus for sharing and discussing their work.

The differences occurred after the common discussion period. The drama group participated in a 45-minute drama session; the drawing group participated in a 45-minute drawing session and then wrote for 30 minutes. The control group participated in the common discussion and then drafted their story for 30 minutes and the control group then participated in a traditional 45-minute language arts lesson found in the school adopted text.

The data analysis was carried out using the GLM (General Linear Model) procedure for unbalanced designs in the SAS (Statistical Analysis Software) computer program. Pretest scores for the three experimental groups were compared using one-way ANOVA to test initial group equivalence (Moore & Caldwell, 1993).

Repeated-measures analysis of variance procedures were used to test the hypothesis that there would be a difference in the quality of narrative writing among students who had participated in drama, drawing, or discussion control-planning activities dealing with the elements of narrative writing illustrated from children's literature. In the experimental group analysis, the dependent variables were overall score organization, style, ideas, and content scores. The independent variables were treatment and time.

The findings of this study were significant when comparing the writing quality of drama and drawing groups with the writing quality of the control or discussion group. The difference in effect size of the writing quality mean scores between experimental groups and the control group was almost two standard

deviations. The writing quality of the drama and drawing groups remained constant after week seven of the study. The writing quality of the drawing and drama groups was consistently and significantly different from the writing quality of the control groups. Attitude did not appear to be a factor influencing the quality of writing. The results from this study suggest that drama and drawing are more successful than traditional language arts discussion as planning activities for writing for second and third grade students.

Caldwell and Moore (1991) implemented a study that explored the support drawing can provide as a planning activity for narrative writing. The writers' purpose was to explore the relationship between two equally important symbol systems that have the process of composition in common. The participants consisted of the available population of two-second and one third grade class at a rural elementary school in Utah. Stratified random selection was used to assign 42 students to two experimental groups, the drawing group and the control (discussion) group, on the basis of gender and grade level.

The class teachers participated in two 2-hour training sessions each week for eight weeks at the beginning of the fall semester. Both groups were given a writing assignment as a pretest. Planning consisted of a 15-minute, teacher-directed discussion of the topic, and was followed by 30 minutes producing a first writing draft. Planning activities for both groups focused upon elements of narrative writing, such as plot, characterization, and setting. The discussions included problem stories, heroes and villains, story settings, beginnings and

endings, contrasting characters, personal narratives, dialogue, description and detail, and fantasy. Following this discussion, the drawing group participated in a 45-minute drawing session, and the control group participated in a 45-minute language arts lesson each week. These treatments were repeated 15 times. Following drawing or control activities, each group spent up to 30 minutes producing the first draft of narrative writing. These writing drafts were analyzed as data for the effects of drawing and discussion planning activities.

Repeated measures ANOVA revealed that the writing quality of the drawing group was significantly higher than that of the control group. It was concluded that drawing is a viable and effective form of rehearsal for narrative writing at the second and third grade levels and can be more successful than the traditional planning activity, discussion. The findings of this study provide empirical support for theories concerning the planning processes involved in writing and for theories related to symbolic functioning in general. First, as it involves a product in itself, drawing allows for the testing out, evaluation, revision, and integration of ideas before writing begins. Problem-solving models of the writing process suggest that it is important for students to assimilate recursive-composing strategies (Bereiter & Scardamalia, 1987), and it may well be that drawing is an easier way of achieving this. Secondly, the results are consistent with the idea that different forms of expression can have an effect upon the way we process information in writing. Thirdly, the results point to the possibility of mutual support between forms of expression. Rehearsal through

drawing may help to overcome some of the problems encountered by novice writers, enabling them to gain control of the process of generating and organizing content prior to writing. Drawing is a resource that is available to every teacher of writing. It has the potential to act as a simple, effective strategy for increasing students' motivation to write.

Knudson (1995) extended earlier work that reported the development and use of writing - attitude instruments in Grades 1-3, 4-8, and 9-12, specifically with respect to grade, gender, and ethnic differences. This study was designed primarily to increase knowledge of students' understanding of writing tasks, particularly of school writing tasks at different grade levels. There was also an interest in relating writing attitude to achievement.

Knudson's study was conducted at one school site that has been operating an IBM compatible computer lab. This site uses an integrated learning system that is a student-centered and teacher-directed learning environment. This laboratory emphasizes higher level thinking skills, along with a literature-based language arts program and challenging science and writing components. Specially designed teacher training sessions on the use of the laboratory and on scientific writing have been presented to the entire school staff. Of the 18 teachers participating in this study, four were process oriented, three were relatively traditional, and 11 mixed traditional and process approaches.

Knudson's sample of students included 430 students enrolled in a K-6 year-round elementary school in a lower to lower-middle socioeconomic status

attendance area in southern California. Students from three classrooms at each grade level (Grades 1-6) participated in this study. There were 232 boys and 198 girls. A profile of the student body by ethnic group is as follows: White 53.5%; Asian 5.10%; Hispanic 33.4%; African American 6.70%; Other 1.30%.

Students were administered either the Knudson Writing Attitude Survey for Children (Grades 4-8) or the Knudson Writing Attitude Survey for Primary Grade students (Grades 1-3). Questionnaires were administered to the students by the researcher in the students' classroom with the classroom teacher present. The researcher read the questions aloud before the students marked their responses.

The writing prompt was administered after the questionnaire. Students had twenty minutes to respond to the prompt. Twelve students were randomly selected at each grade level to be interviewed regarding their attitudes toward writing, conceptions of writing tasks and activities, and perception of the importance of writing. These interviews were conducted individually and ranged from 10 to 30 minutes.

The data were analyzed with a stepwise multiple regression, with the dependent variable being the holistic scores on the writing sample and the independent variables being the students' grade, gender, and writing attitude score. R-square values at each step of the calculated multiple-regression analysis were assessed.

The variables grade, gender, and writing attitude score accounted for 46.1% of the variance. Students' grade in school accounted for 40.6% of the

variance. Students' attitudes toward writing accounted for 3.8% of the variance, and gender accounted for only 1.7% of the variance. Results confirm prior findings that grade and gender are positively related to writing performance. Specifically, students who are in upper grades are female, and those who have more positive attitudes toward writing are more likely to be above-average writers. Specifically, older students and girls tend to be better writers than younger students and boys. However, attitude toward writing is a separate variable, and those with positive attitudes toward writing tend to be better writers. Results of this study demonstrate further that attitude toward writing is also related to writing competence.

Results also indicate that children begin school seeing writing as drawing. Then they move to seeing it as printing, and by Grade 6 they identify writing as cursive writing. Students would improve their writing in Grade 1 by attending to surface-level features of writing, by Grade 3 "trying harder," and by Grade 4 using specific process-writing strategies to approach the writing task.

Shook, Marrion, and Ollila (1989) conducted a study to clarify the perceptions and attitudes that primary children have about the writing process, specifically in the context of the classroom as well as generally in the children's total environment. This study involved 108 children in British Columbia. The total number of children surveyed included 60 girls (29 in Grade 1 and 31 in Grade 2) and 48 boys (25 in Grade 1 and 23 in Grade 2). There were 54 students at each grade level in this middle-class population.

An unstructured survey of open-ended interview questions was divided into three categories. These categories included the individual's perception of the general purpose for writing, individual personal preferences, and the writer's self-concept. Each child was given ample time to respond orally to each question. The child's responses were then recorded in writing.

Most children responded easily to the attitudinal writer survey. The scoring of items was not preconceived but emerged as a simple tally that was taken for all 108 answers to each survey question. The data indicated that Grade 1 and Grade 2 children understand the communicative nature of writing. Of the 93% who were able to list one to four items that persons printed or wrote on paper, 53% easily recalled three or four items.

The Grade 1 mean scores were 2.31 items for girls and 2.51 items for boys. Grade 2 mean scores were 2.97 items for girls and 3.13 items for boys, indicating an increase in awareness of the function of writing from Grade 1 to Grade 2. Comparison of the attitudes toward writing held by boys and girls showed no significant differences. The attitudes of these Grade 1 and Grade 2 children were positive. They understood that writing is important for many reasons. The majority of the children were aware of the communicative nature of writing. Their writing preferences centered around at-home activities, and they relied on home help rather than teacher assistance.

The survey findings suggest that teachers should place increased value of children's own spontaneous exploration of the writing process in order to support

the transition from drawing to writing to discourse. The interest that parents and teachers show in a child's writing and their respect for the child as a writer demonstrate the importance of the writing process in the life of the child.

Teachers need to remember the significance of simply modeling reading and writing activities for students. Time is necessary to write, and that time is well spent. Children must be allowed ownership of their writing. Research done by Calkins (1986) and Graves (1983) confirm the changes in both the teachers and the students attitude towards writing as a result of the writing process. Children's attitudes about writing and themselves change as they begin to view themselves as writers.

Planned Solution Strategy

While reviewing the professional literature, it was evident that the experts agreed on several key points. Current literature regarding the need for improved writing skills uncovered a variety of possible solutions. One of the most common suggested solutions was to view writing not only as a product, but also as a cognitive process embedded in a social context. Writing activities seemed to be most effective when they taught students long-lasting strategies for composing.

After reviewing all the professional literature and various possible solution strategies, the writer chose four strategies to be implemented in this practicum to improve narrative writing, composition skills, and related attitudes. The process approach to writing (MacArthur, Graham, Schwartz, and Schafer, 1995; Graves,

1983; Calkins, 1986; Atwell, 1987; and Dahl, 1988) was the first strategy chosen because the writing process includes prewriting, drafting, editing, proofreading, publishing, and presenting. The writing process steps would be established into a writer's workshop in the classroom. The writer's workshop approach would further the students understanding of the writing process. While the writing process would be the actual process or material to be taught, the writing workshop would be viewed as a way of approaching the task of teaching writing and organizing for it. There would be regular assigned periods of time when writing is done. Suggested as well as original topics for writing would be offered. A sense of audience would be encouraged. There would be motivation to correct spelling. The children would work with the teacher, as well as reading and enjoying other children's published work. The environment would provide positive reinforcements, successful non-threatening experiences, and opportunities for reluctant writers to take risks. The teacher would have the opportunity to model, and children could experience the reality of what adult writers do when they write.

The integration of word processing (Pelletier, 1992; Dickinson, 1986; Chambless and Chambless, 1994; and Simic, 1994) into the classroom to enhance the writing process was the second strategy. Word processing would be an ideal form of support for student revision because changes would become fun and painless to make. Students would have an improved attitude toward writing because word processing would ease the revision process. Furthermore, Collins

and Sommers (1985) found that students who used word processors for writing tended to make more and better revisions than students who do not use word processors. Word processing would allow for peer collaboration. This would easily be accomplished at the computer because several students could view the text at once and illegible handwriting would not be a problem. Using the computer as a tool to teach writing skills would give the students motivation to write.

Graphic organizers (Hyerle, 1996) was the third strategy. Helping students with organization and focus, development, and response to task skills would be done through the use of graphic organizers. Graphic organizers would help students keep to a topic by having their ideas in front of them as they write. They would also help students to keep things in the correct sequential order. Graphic organizers are credited to be tools that could guide students through the stages of the writing process. With graphic organizers, abstract information would be represented in a visually concrete form giving students the opportunity to elaborate on their ideas. Using graphic organizers as a strategy would develop higher-order thinking skills, such as analyzing, selecting and organizing, inferencing, evaluating, problem solving, and making comparisons.

Using art in the process approach to writing (Caldwell and Moore, 1991; Moore and Caldwell, 1993; Olshansky, 1994)) was chosen as the fourth strategy. Highly visual and kinesthetic by nature, art in the process approach to writing would provide an enticing alternate pathway into writing for students with a

variety of learning styles. The students' narrative rehearsals through drawing/art would be regarded as first drafts, and thus would be organized, developed, revised and edited in this form before the process of transcription begins. This media would facilitate the elaboration and revision of ideas. Drawing/Art would be an effective strategy for increasing students' motivation to write, it would enhance the quality of the resultant writing, and it would help improve students' attitude toward writing.

The alternative solutions were rejected. In traditional writing programs (Simic, 1994; Chambless and Chambless, 1994) only the teacher assigns writing topics on the current theme leaving few options for student choice. An absence of ownership, personal experience and knowledge, authenticity, and interest and motivation related to teacher assigned topics may contribute to the lack of writing development. Writing is viewed by some traditional teachers as purely an individual task. Consequently, the environment and writing process is structured in such a way as to restrict social and verbal interaction. With the exception of peer editing for mechanical errors, input and feedback is often confined to the teacher's realm. In traditional writing programs parts to whole are emphasized, the product is the most important, and students use writing to satisfy others.

Even though the Writing to Write computer based program (Chambless and Chambless, 1994) seemed to be an effective program for improving writing skills, it was rejected at this time because funds and computers were not available.

CHAPTER III

Method

This practicum was implemented over a period of 12 weeks. The goal of the practicum was to improve the targeted second grade students' narrative writing skills, composition skills, and their attitudes toward writing. To reach this goal the writer used the writing process approach and integrated word processing. Graphic organizers and art activities were also integrated into the writing process approach. The writing process steps were established into a writer's workshop in the classroom. The writer's workshop approach was used to further the students understanding of the writing process.

The writing workshop, based on models by Donald Graves (1983), Lucy Calkins (1986), and Nancie Atwell (1986), was conducted daily. Each workshop session consisted of 1) a mini-lesson which lasted five to ten minutes. During this time the writer taught strategies and skills for students to use in their writing. Many of the mini-lessons focused on procedures necessary for the functionality of the writing workshop. Other mini-lessons dealt with anything from choosing a topic, editing, revising, to word processing techniques. And many of the mini-lesson topics were determined by the needs the students were exhibiting at a certain time. 2) Status of the class lasted three to five minutes.

During this component the students reported their plans for writing time. Each student provided an oral statement about what would be worked on for that day. It was a verbal agreement that also helped the student focus before getting to work. 3) Writing time lasted 30 minutes or longer. Students wrote independently, worked collaboratively, or conferenced with the teacher or other students, during this time. Students used the steps of the writing process to publish original writings. In the writer and student conference, the writer did not become the proclaimer of mistakes, but acted as a facilitator for the student's thinking processes about writing. 4) Group share lasted 10 minutes. During this component there was a whole group sharing and discussion of writing. Two to three students shared what they wrote each day. Students used art supplies to illustrate their writings, make books, or they published their writings using the computer. Students shared published writings with an audience. All published work was recognized and celebrated. Students were given feedback from their peers, the writer, and their classroom teacher.

Those involved in the practicum implementation were the writer, the targeted second grade students, and the second grade classroom teacher. The writer prepared and delivered lessons. The students were participants in all activities. The classroom teacher helped score the students pretest and posttest writing samples. There were two IBM compatible computers for student use during this practicum. The 1989 *Children's Writing and Publishing Center* (Appendix O, p. 107) was the word processing software program that the students

utilized. Assessments were made through pre- and post writing samples and attitude survey results.

Week One

During week one an attitude survey (Appendix A, p. 77) was conducted. The writer interviewed the targeted students individually and recorded their responses. The writer collected a writing sample, that was used as the pre-test, from each student. For this first writing sample the teacher assigned the topic/prompt. (Appendix B, p. 79)

Also during week one, the writer used a computer to introduce the students to the operation of the word processor. The students learned how to write, delete, and insert characters. For the first computer exercise the students were given sentences to copy, with blanks to fill in. The sentence read "My name is _____. I am _____ years old." After completing the sentences, the students added another sentence telling something about themselves. Students worked in pairs to practice keyboarding skills. The writer set up a management system for access to the computer because of the limited student/computer ratio. The writer monitored students.

Week Two

During week two the writer introduced the writing process approach and the writing workshop explaining that they were designed to help students become better writers. (The writing process was the actual process or material to be taught, the writing workshop was viewed as a way of approaching the task of

teaching writing and organizing for it.) The writer used posters to assist in pointing out and describing each phase of the writing process (Appendix E, p. 85) and the writing workshop (Appendix F, p. 87) to the targeted second grade students. The writer also explained that groups of students would be working on different activities during the writing workshop. For example, some were at the computers, others were conferencing, and some were writing. The writer guided group practice by modeling the steps of the writing process. (Appendix G, p. 89) The writer familiarized the targeted students with the Narration Criteria Worksheet (Appendix H, p. 92) This criteria worksheet was a model for narrative writing. Students became familiar with the criteria in order to revise their writing before considering it a completed writing. The writer also explained to the targeted students that they would use the Narration Revision Checklist (Appendix I, p. 94) to help guide their discussions during conferences.

The writer scheduled groups of students for computer/ keyboarding practice. The writer monitored students.

Week Three

During week three the writer introduced a graphic organizer to the targeted second graders. The writer explained that graphic organizers are concrete tools used for structuring information. The writer helped the students generate and organize their thoughts and ideas on paper by using, what the writer called, an Arrow Map (Appendix J, p. 96). Students used the Arrow Map to sequence the plot of their story and to order their information. In the larger

rectangles – going from left to right – the students wrote in the major stages of the story, (beginning, middle, and end) and in the smaller rectangles below, they wrote in the substages of each major stage. Students chose their own topic. The writer guided, coached, listened, and encouraged the students to take risks with ideas. The writer continued these responsibilities and nurturing strategies throughout the practicum implementation. The students planned and completed the prewriting part of their first writing sample by sequencing their story plot by stages and substages, analyzing and prioritizing important events, and sequencing their paragraphs for writing. Students wrote using the word processor. The expectations for the third week included drafting, teacher and peer conferencing – revising, and editing - while they referred back to their Arrow Map. The targeted students used the narration revision checklist during conferences to guide the discussion.

Week Four

In the fourth week the students edited their writing by checking capitalization, punctuation, spelling, and grammar and usage. The students published their writing using the word processor. Computer graphics were added. Each student then shared their writing sample with an audience. Students were given feedback from their peers and the writer. All work was recognized and celebrated.

Week Five

During week five the writer introduced image-making as a part of the process writing approach. To begin, the writer showed the class a variety of textured papers one at a time. Students were given the opportunity to describe what they saw. Then, each student created a portfolio of hand-painted, textured papers. Paper texturing techniques ranged from sponge painting, glue textured drawings to watercolor on wet paper, and salt on watercolor. Once these portfolios were complete, the students used their textured papers to awaken their imaginations. The students spread their textured papers on the floor and found the stories hidden within their own textured papers. Discovered creatures and settings became rich resources for story ideas. Before the students began cutting and pasting, they were required to verbalize their ideas to the writer. The students numbered each of their papers so they would not forget the order of their story. The textured papers became the raw materials for building colorful collage images. During actual image-making, the students cut and pasted their textured papers to create collage images. Image-making was used a form of story drafting, and it was a vehicle for text rehearsal. As the students wove story images in pictures and words, stories were developed through a lively interactive process of physical manipulation, visual imagery, oral language, and written words. Once the students' collage images were complete, the students learned to "read" their own images. The students verbalized what was already "written down" in the picture. (This activity was a tool for helping students translate their thoughts into

written language.) The colors, textures, rhythms, and shapes appearing within their images helped them write descriptive language. The students used "image-reading" again at the time of revision to add further detail and descriptive language to their text. Revision took varied forms. Students added or took away words or pictures; or they rearranged words or pictures. The students continued one-on-one conferences with the writer, or in small groups. The writer circulated among the small group conferences to keep the discussions on focus. The writer and the students' peers asked questions, made comments, and offered suggestions during conferences.

Week Six

During week six the students prepared their stories for publication by carefully matching and numbering pictures and words. This provided students with another concrete format for checking their story for content, organization, or sequencing. Texts were typed using the word processor, and then glued to the back of appropriate collage illustrations. Collage books were bound. Each newly published author/illustrator shared their story, and obtained general and specific feedback about how well their writing was accomplished and how to improve the writing. This feedback was important to both the writer and student to further improve student's ability to communicate in writing.

Success of the implementation during the first six weeks was determined when the writer reviewed the narration checklist (Appendix I, p. 94) with the students. No modifications were employed.

Week Seven

During week seven the writer introduced a second graphic organizer to the targeted second grade students. The writer called this graphic organizer the Donut on a Napkin Map (Appendix K, p. 98). The writer served small powdered donuts on a white napkin as the students did "My Character Traits" as a warm up activity. The writer distributed the Donut on a Napkin Maps and asked the students to draw a picture of themselves in the center circle. In the outside circle, the writer asked the students to write words that describe themselves, (brown eyes, long legs, short hair, etc.) and their personality traits (soft voice, thoughtful, cheerful, etc.) The writer then went around the group and asked each student to share one important trait from their map.

The students also used the Donut on a Napkin Map in week seven to help them brainstorm and describe the elements in their next narrative writing. Students chose their own topics. In the center circles, the students wrote the elements of a narrative story. (setting, characters, plot, problems, etc.) One element went in each center circle. In the outside circles the students wrote in adjectives or adjective phrases to describe each element in their story. The Donut on a Napkin Map was a starting point for generating ideas during the prewriting stage, especially when it was followed by the Arrow Map for organizing, sequencing and ordering information. The targeted students used the process approach and worked individually on their writing sample. The writer was available as an advisor. The conferring was conducted with a peer, a small group,

or with the writer. Students continued to use word processing techniques on the computer. The writer encouraged the students to use two hands to type.

Week Eight

In the eighth week the targeted students referred back to their graphic organizers and reread their writing sample. The students revised their work by adding on, deleting, and conferencing. They edited and published their writing samples using the word processor. Computer graphics were added. The students also shared their writing with an audience. All work was recognized and celebrated.

Week Nine

During week nine the targeted second grade students individually used art supplies to draw a picture about a topic of their choice. The students used the process approach to writing. The students wrote using the word processor. The writer interacted with the students during writing and maintained a positive environment.

Week Ten

During week ten the students edited their writing sample by checking capitalization, punctuation, spelling, grammar and usage. They published their writing sample using the computer. The writer invited the students to read their writing sample and share their drawing. Students were given feedback. All work

was recognized and celebrated.

Week Eleven

During week eleven, the students worked with a partner. The partners chose their own topic. The student partners planned for organizing the information of their writing by either choosing a graphic organizer or a textured paper/drawing as part of the pre-writing stage for their writing sample. The student partners focused on purpose, audience, topic, and the variety of forms their writing could take. Students pre-wrote, drafted, and revised. The writer reminded the students that the focus during the drafting stage should be on the context of the message, not the conventions. The writer helped students amplify details about events or descriptive details and helped them arrange a series of events in chronological order. The student partners continued to utilize the word processing software on the computers. The student partners edited and published their writing samples. The writer helped students see writing as a shared value.

Week Twelve

During week twelve the writer evaluated the effectiveness of the practicum. This was done in two ways. One, the writer gave the targeted students the same attitude survey (Appendix A, p. 77) that was given during week one. The second assessment tool was the same writing prompt, (Appendix B, p. 79) designed to obtain a writing sample from each of the targeted students, that was given during week one. This final week was also utilized compiling evaluation of data from the completed practicum implementation.

Materials

Materials used in this practicum were regular classroom supplies, art supplies, student writing folders, two computers, word processing software, a printer, and several posters made by the writer.

Higher Level Thinking Skills

Throughout the practicum implementation, students were encouraged to use higher level thinking skills. Some examples of higher level thinking skills students used in this implementation included pre-writing which involved planning and decision making; drafting which involved fluency, elaboration, and originality; revising which involved flexibility, and more elaboration; editing which involved evaluation and drawing up criteria; sharing was active and often involved feedback.

Data Collection/Assessment

The writing samples (pretest and posttest) were used to measure proficiency levels ranging from minimal to exceptional performance. The criteria and corresponding proficiency levels are described on the Scoring Rubric (Appendix D, p. 83). Composition skills were assessed by the targeted students' ability to organize, focus, and develop a written response to accomplish a specific purpose or task. Each targeted student's paper was rated independently for each dimension by two readers, the writer and the classroom teacher, on a 4-point scale ranging from a low of 1 to a high of 4. The scores of the two readers were combined to yield an overall score ranging from 2 to 8.

The scores on the student reports were arranged along the following continuum:

Exceptional Response (8):	An "exceptional response," was the highest possible response. To receive a score of 8, a student received scores of 4 from both readers.
Adequate Response (6 or 7):	To receive an "adequate response," a student received scores of 3 from both readers or a score of 3 from one reader and a score of 4 from the other reader.
Limited Response (4 or 5):	To receive a "limited response," a student received a 2 from both readers or a score of 2 from one reader and a score of 3 from the other reader.
Minimal Response (2 or 3):	To receive a "minimal response," a student received scores of 1 from both readers, or a score of 1 from one reader and a score of 2 from the other reader.
No Measurable Response:	This score was assigned to papers that were blank, illegible, completely off the topic, or copied verbatim from the reading passage.

The Scoring Rubric describes the proficiency levels for each score on the 4-point scale. For example, students who received an "adequate response" performed at either Level 3 of the rubric, or a combination of Levels 3 and 4. In contrast, students who received a "minimal response" performed at either Level 1 of the rubric, or a combination of Levels 1 and 2.

The targeted second grade students' writing samples (pretest and posttest)

had an additional rating, using a 1-3 scale (Appendix C, p. 81). The scale was used to measure narrative writing skills - content, form, and purpose.

The targeted second grade students' pre and post-writing attitude surveys (Appendix A, p. 77) were evaluated and compared to see if their attitudes towards writing improved.

CHAPTER IV

Results

In order to evaluate the effectiveness of the practicum's three specific objectives three assessments were used. First, the writer observed narrative writing skills by comparing pre and post writing tests (Appendix B, p. 79). Second, the writer observed writing composition skills by comparing pre and post writing tests (Appendix B, p. 79). Third, the writer observed writing attitudes by comparing pre and post writing attitude surveys (Appendix A, p. 77).

Objective I was considered successful since after completion of the 12 week program 75 percent of the targeted second-grade students increased their narrative writing skills by at least one proficiency level. Twenty-five percent of the targeted second-grade students increased their narrative writing skills by two proficiency levels. Specific results from the pre and post narrative writing tests showed the content, form, and purpose improved for students. Students narrowed their topics and used more detail. The writer found teaching that emphasizes the process of writing is important and valid. The writer used this approach and helped the target students develop efficient, yet flexible writing strategies. Word processing facilitated the writer's teaching not only the mechanics of writing, but also the process as a whole. The writer feels that the word processing tool offers

exciting possibilities provided one acknowledges the writing process and values students' ideas. The writer believes that the writing workshop is an exceptional practice for teaching the writing process. Appendix L, page 101 shows the complete results of this measure.

Objective II was considered successful since after completion of the 12 week program 50 percent of the targeted second-grade students increased their writing composition skills by at least one proficiency level. The other fifty percent of the targeted second-grade students increased their writing composition skills by two proficiency levels. Specific results from the pre and post writing tests showed the organization and focus, development, and response to task skills improved for students. The two graphic organizers the writer presented to the target group of students successfully helped them develop their thinking processes, and their ability to organize ideas in a logical order that directly related to their topic. The writer feels the graphic organizers helped improve the quality and quantity of the students' writings and motivated them to learn. Appendix M, page 103 shows the complete results of this measure.

Objective III was considered successful since after completion of the 12 week program the targeted second-grade students demonstrated a 100 percent increase in positive attitudes toward writing. Specific results from the pre and post attitude surveys showed the number of students who reported they like to write increased from 50% pretest to 100% posttest. Sixty two point five percent more students described themselves as being "great" writers on the posttest than

on the pretest. The target students became more motivated to write because they used word processing. Word processing seemed to influence the writing process because of the ease of editing and revising. The students' hesitation to revise their work diminished. The neat, clean typed text made many students feel that they were great writers. The upright monitor and clear print made students' writing accessible to peers and promoted social interaction around writing tasks. When the targeted students worked at the computer with a partner, they articulated their plans and their reactions to what their partner was writing. Also, peers provided instruction or feedback as soon as a problem arose. The students submitted their writings to a true process of improvement. Their pride for the final product increased.

The target students found that the art process was an alternative pathway to writing. The targeted students took delight in each art process as well as in each finished product. Their ideas were imaginative and their language in discussing them was descriptive. Adding a rich visual and kinesthetic component to the writing process not only altered students story making process, but it also enhanced their finished pieces. Art activities helped improve students' attitudes toward writing. When the target students read their writings to the class and shared their art, the audience was always attentive, and the author was proud. Appendix N, page 105 shows the complete results of the pre and post writing attitude survey.

Throughout the implementation students were encouraged to use higher

level thinking skills. Planning, decision making strategies, fluency, elaboration, originality, flexibility, evaluation, and drawing up criteria are higher level thinking skills the targeted second-grade students used successfully in this practicum implementation.

Based on the success of the three specific outcome objectives and positive student reaction to the integration of word processing, graphic organizers, and art into a process approach to writing, the practicum proposal was deemed successful.

CHAPTER V

Recommendations

The success of this practicum project suggests the methods and results should be shared with other writing teachers and administrators. Sample lesson plans should be prepared. The information should also be sent to writing teachers at other elementary schools in the county.

This practicum project could be enhanced in three ways. One, providing ongoing in-service workshops educating teachers on how to integrate word processing, graphic organizers, and art into a process approach to writing. Two, media center personnel should be supplied with lists of books, videos, and filmstrips that enhance writing workshop programs. These materials should be easily available to the classroom teacher. Three, providing more computers and printers for student use.

Teachers need to have a plan for adequate access to the computers. Students need time and guidance to become as efficient at using a word processor as they are at using a pencil. Teachers should create a comfortable writing atmosphere in the classroom – one where students feel at ease taking risks with writing. Time is essential to teaching writing. Teachers need to provide students with the time to write regularly and on a predictable schedule. This gives the

students an opportunity to anticipate writing and plan accordingly.

Reference List

- Atwell, N. (1987). In the middle: Writing, reading, and learning with adolescents. Portsmouth, NH: Heinemann.
- Bereiter, C., & Scardamalia, M. (1987). An attainable version of high literacy: Approaches to teaching higher-order skills in reading and writing. Curriculum Inquiry, 17, (1), 8-30.
- Braungart, D. (1985). Understanding the writing process: Introducing students to composing. Trenton, NJ: Boynton-Cook, 31-32.
- Bright, T. L. (1990). Integrating computers into the language arts curriculum. Paper presented at the Indiana Fall Language Arts Conference. (ERIC ED 326884).
- Caldwell, H., & Moore, B. H. (1991). The art of writing: Drawing as preparation for narrative writing in the primary grades. Studies in Art Education, 32, (4), 207-219.
- Calkins, L. M. (1986). The art of teaching writing. Portsmouth, NH: Heinemann.
- Chambless, J. R., & Chambless, M. S. (1994). The impact of instructional technology on reading/writing skills of second grade students. Reading Improvement, 31, (3), 151-155.
- The Children's Writing and Publishing Center, Version 6.1 (1989). [Computer Program]. The Learning Company and Creative Pursuits.
- Collins, J. L., & Sommers, E. A. (1985). Writing on-line: Using computers in the teaching of writing. Upper Montclair, NJ: Boynton-Cook, 47-50.
- D'Ignazio, F. (1987). It's the mentality, it's not the money. Instructor Special Hi-Tech Issue, 10-12.
- Dahl, K. L. (1988). Writers teaching writers: What children learn in peer conferences. English Quarterly, 21, (3), 164-173.

- Dickinson, D. K. (1986). Cooperation, collaboration, and a computer: Integrating a computer into a first-second grade writing program. Research in the Teaching of English, 20, (4), 357-378.
- Edwards, J. M., & Juliebo, M. F. (1989). The effect of topic choice on narrative writing: Grades 1-3. English Quarterly, 21, (4), 247-257.
- Eldredge, J. L., & Baird, J. E. (1996). Phonemic awareness training works better than whole language instruction for teaching first graders how to write. Reading Research and Instruction, 35, (3), 193-208.
- Goodman, K. (1992). I didn't found whole language. The Reading Teacher, 46, 188-199.
- Graham, S., & Harris, K. R. (1994). Implications of constructivism for teaching writing to students with special needs. Journal of Special Education, 28, 275-289.
- Graves, D. H. (1983). Writing: Teachers and children at work. Portsmouth, NH: Heinemann.
- Hansen, J. (1987). When writers read. ERIC. (ED 282226).
- Harste, J., et al. (1988). Creating classrooms for authors. ERIC (ED 320168).
- Hicks, J. R. (1993). Let's get serious about teaching children to write. Lanham, MD: University Press of America.
- Houston, G. (1991). An education consultant's report: Writing to write. Atlanta: International Business Machines Corporation.
- Hyerle, D. (1996). Thinking maps: Seeing is understanding. Educational Leadership, 53, (4), 85-89.
- Knudson, R. E. (1991). Effects of writing experience, grade, and reading level on children's narrative writing. Journal of Research and Development in Education, 24, (3), 45-52.
- Knudson, R. E. (1995). Writing experiences, attitudes and achievement of first to sixth graders. The Journal of Educational Research, 89, (2), 90-97.

- MacArthur, C. A., Graham, S., Schwartz, S. S., & Schafer, W. D. (1995). Evaluation of a writing instruction model that integrated a process approach, strategy instruction, and word processing. Learning Disability Quarterly, 18, (4), 278-291.
- Moore, B. H., & Caldwell, H. (1993). Drama and drawing for narrative writing in primary grades. Journal of Educational Research, 87, (2), 100-110.
- Olshansky, B. (1994). Making writing a work of art: Image-making within the writing process. Language Arts, 71, 350-356.
- Pelletier, P. (1992). Word processing as a support to the writing process. International Journal of Instructional Media, 19, (3), 249-255.
- Petty, W. T., Petty, D. C., & Becking, M. F. (1981). Experiences in language: Tools and techniques for language arts methods. Boston: Allyn, Bacon.
- Rentel, V., & King, M. (1983). Present at the beginning. Research on writing: Principles and methods, 139-176.
- Shook, S. E., Marrion, L. V., & Ollila, L. O. (1989). Primary children's concepts about writing. Journal of Educational Research, 82, (3), 133-138.
- Simic, M. (1994). Computer assisted writing instruction. ERIC Clearinghouse on Reading, English, and Communication. (ED 376474).
- U.S. Department of Education. (1986). What works: Research about teaching and learning. Washington, DC: United States Department of Education.

Appendixes

Appendix A
Writing Attitude Survey

Appendix A
Writing Attitude Survey

1. How do you feel when your teacher says that it is writing time?

2. Do you like to write?

YES NO SOMETIMES

Why or why not?

3. Do you like the teacher to give you a topic or do you like to decide on a topic yourself?

TEACHER GIVES TOPIC I DECIDE ON TOPIC

Why?

4. What tools do you use to write?

COMPUTER PENCIL & PAPER BOTH

5. How would you describe yourself as a writer?

GREAT GOOD OK NOT GOOD

6. Do you think you could write better than you do?

YES NO

Appendix B
Writing Prompt

Appendix B

Writing Prompt

Name _____

Date _____

Everyone has happy days that he or she will always remember. Think about a happy day you have had. Think about where you were, who was with you, when did this happen, what made you happy, and why it made you happy. Write a story that tells about your happy day.

Appendix C
Rating Scale for Narrative Writing

Appendix C

Rating Scale for Narrative Writing

Target Student _____

ScoreContent

organization and unified focus

development – beginning, middle, and end

flows smoothly from idea to idea

narrates a clear sequence of events

elaborated upon a sequence of events

Form

mechanics

word usage

sentence formation

Purpose

addresses the writing task appropriately

SCORE KEY

Minimal – 1

Pass – 2

High – 3

Appendix D
Scoring Rubric

Appendix D
Scoring Rubric

Composition

- *Organization and Focus
- *Development
- *Response to Task

Proficiency
Levels:

Criteria:

4

The response is an exceptionally well organized and clearly focused paragraph that presents a plan. Ideas flow logically from beginning to end. Development is elaborate. The response successfully fulfills the task.

3

The response is adequately organized and focused. Ideas flow logically through most of the response. The plan may not be fully developed. The response adequately fulfills the task.

2

There is limited evidence of organization and focus. There may be several disruptions in the logical flow of ideas. Disruptions may be significant. Development is limited. The response may only partially fulfill the task.

1

Organization and focus are minimal or absent. Ideas do not flow logically. Development may be minimal or altogether absent. The response may not be a plan.

Appendix E
The Writing Process

Appendix E
The Writing Process



The Writing Process

Prewriting – experience, talk, read, listen, view

Thoughts on Paper – drawing, graphic organizer, notes, chart

Drafting – free writing

Revising – adding on, deleting, conference, helping circle

Editing – capitalization, punctuation, spelling, grammar and usage

Publishing – finished form, sharing



Appendix F
Writing Workshop

Appendix F
Writing Workshop



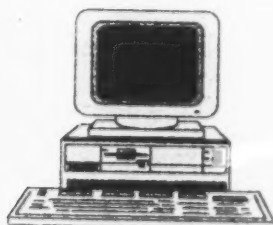
Writing Workshop

Mini-lesson (5-10 minutes) - The teacher teaches strategies and skills for students to use in their writing.

Status of the Class (3-5 minutes) – Students report their plans for writing time.

Writing time (30+ minutes) – Students write or conference with the teacher or other students.

Group Share (10 minutes) – This is a time of whole group sharing and discussion of writing. Two to three students share each day.



Appendix G
Guided Lesson Plan

Appendix G

LESSON PLAN

- Title: That Makes Me Remember the Time
- Purpose: To provide guided group practice in narrating a clear sequence of events.
- Materials: Interesting objects that are likely to evoke a story. Objects which suggest an activity, an event, or a character will probably be the most effective, for example, a baseball mitt, a balloon, an umbrella, or a top hat.
- Specific Skills:
1. How to develop a composition with a beginning and an end
 2. How to order events sequentially, using words and phrases that denote sequence

Instructional Strategy:Pre-writing

- Display the objects that will be used for this activity.
- Ask students to tell about experiences that the objects make them recall. Direct the discussion toward relating a series of events rather than recounting only emotional responses to the objects.
- Write on the board the events that are mentioned.
- Divide the class into small groups. Each group is to create a story for their classmates about an experience which involves their selected object. Groups may use the events listed on the board as the basis for their stories or they may invent events.
- List on the board sequence indicators such as "first," "last," "just before," "just after," "now," "later," "next," "so," and "then."
- Instruct students to use these words in order to indicate the sequence of events in their stories.
- Have each group prepare a graphic organizer for their story. The graphic organizer should indicate how the story will begin, the order of events in the story, and how the story will end.

Writing

- One member in each group writes the beginning for the group story. Then the story is passed around the group and each student adds one or two sentences to the narrative. The last student writes the ending for the story.
- Have each student consult the story graphic organizer prepared in the pre-writing stage before adding his or her section to the writing. Also have each student underline the sequence words and phrases he or she uses.

Revision

- Allow the members of each group time to review and re-write their writing as often as necessary based upon the Narration Revision Checklist and to make any changes they feel would make the story better.
- Direct students to pay particular attention to their story's beginning and end and its sequence of events. All three elements should be clear to readers.

Editing

Have students edit their papers individually and then with other team members.

Publishing

- Have each group read its story aloud to the rest of the class.
- Guide students in making constructive suggestions as to how a story might make the sequence of events it relates even clearer. Additional sequence words might be suggested if needed.
- Discuss how various groups created different stories all based upon the same object. Comment upon particularly effective stories, as well as upon stories with clear beginnings and endings.
- Let students illustrate their group story and then share their story and their artwork with other classes.

Appendix H
Narration Criteria Worksheet

Appendix H

Narration Criteria Worksheet

Contentorganization &
unified focus

The entire writing is about the one subject and does not wander.

development -
beginning, middle,
and end

The writing introduces the topic to the reader and brings the topic to conclusion.

smooth flow

The writing does not sound choppy.

narrates a clear
sequence of events

The writing presents information in a logical order that is directly related to the topic.

sufficient amount
of elaboration

The writing uses enough and varied details as well as, background information.

Formmechanics

The writing does not have distracting punctuation, capitalization, or spelling errors.

word usage

Words are used in the appropriate context. There is subject-verb agreement, etc.

sentence
formation

Sentences are complete with subjects and verbs. There are no run-ons or fragments.

Purpose

Addresses the writing task appropriately.

Appendix I
Narration Revision Checklist

Appendix I

Narration Revision Checklist

Directions: The teacher and students use the criteria listed below to assist in drafting and revising writing. After the checklist is completed by the student and the written piece is revised/re-drafted, it should be given with the composition to the teacher for additional comments.

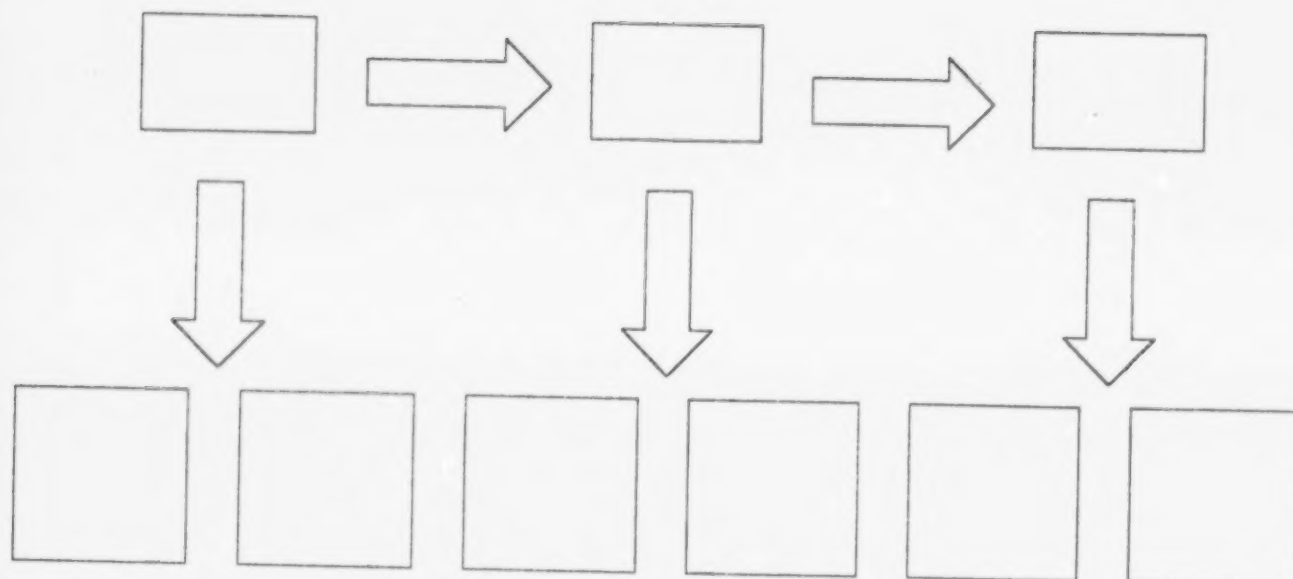
<u>Student</u>	<u>Teacher</u>	<u>Content</u>
-----	-----	organization and unified focus
-----	-----	development – beginning, middle, and end
-----	-----	flows smoothly from idea to idea
-----	-----	narrates a clear sequence of events
-----	-----	elaborated upon a sequence of events
		<u>Form</u>
-----	-----	mechanics
-----	-----	word usage
-----	-----	sentence formation
		<u>Purpose</u>
-----	-----	addresses the writing task appropriately

Appendix J

Arrow Map

Appendix J

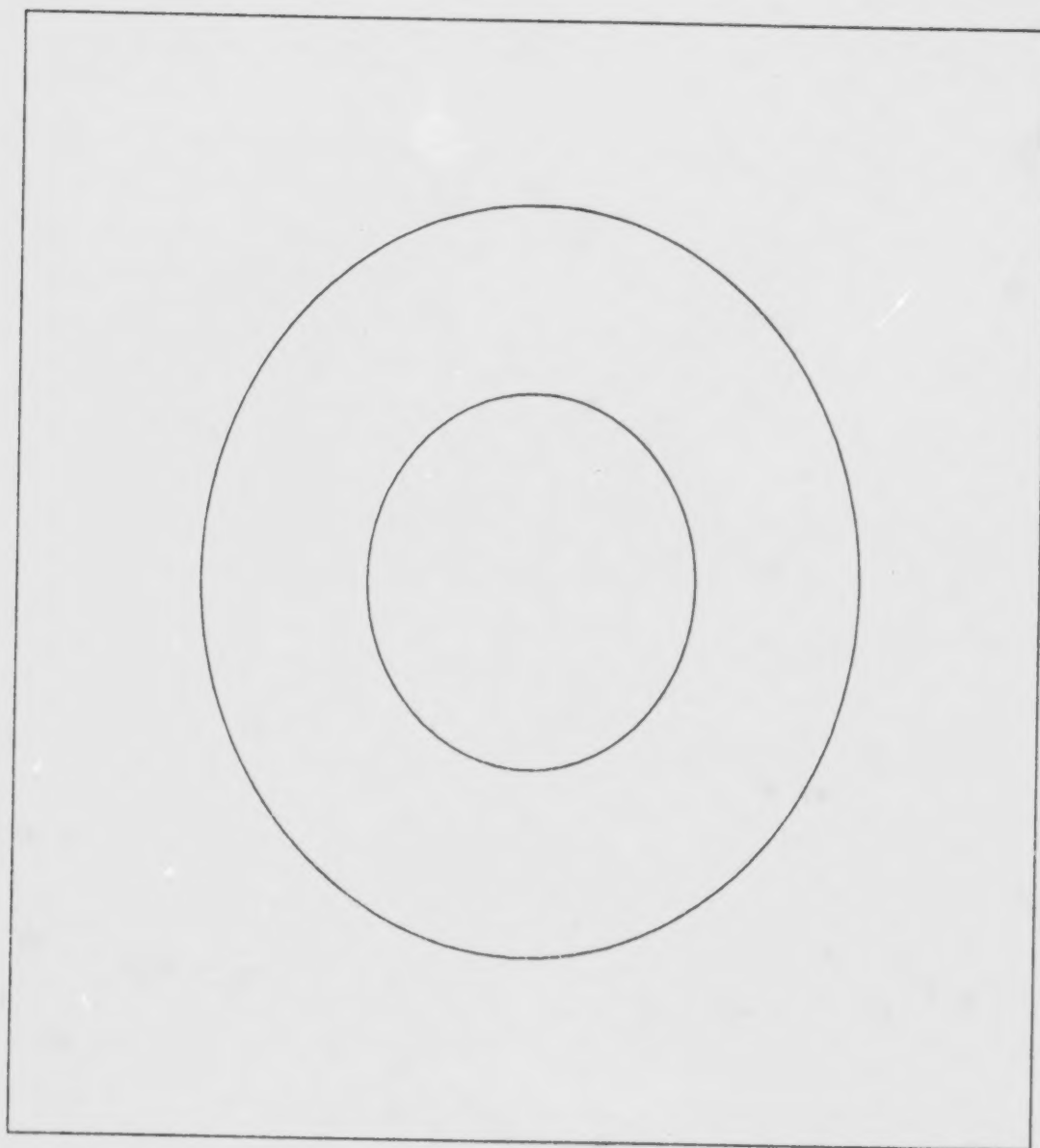
Arrow Map



Appendix K
Donut on a Napkin Map

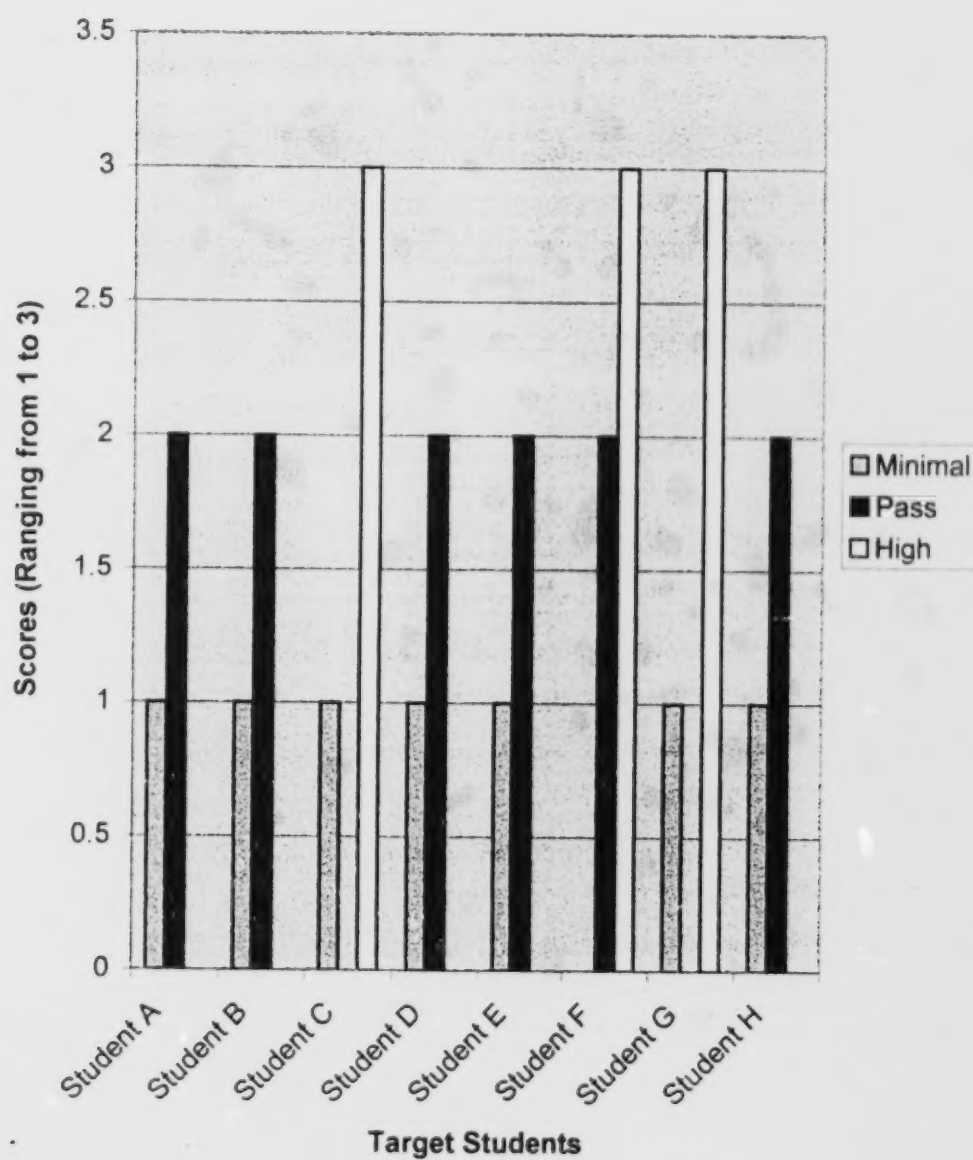
Appendix K

Donut on a Napkin Map



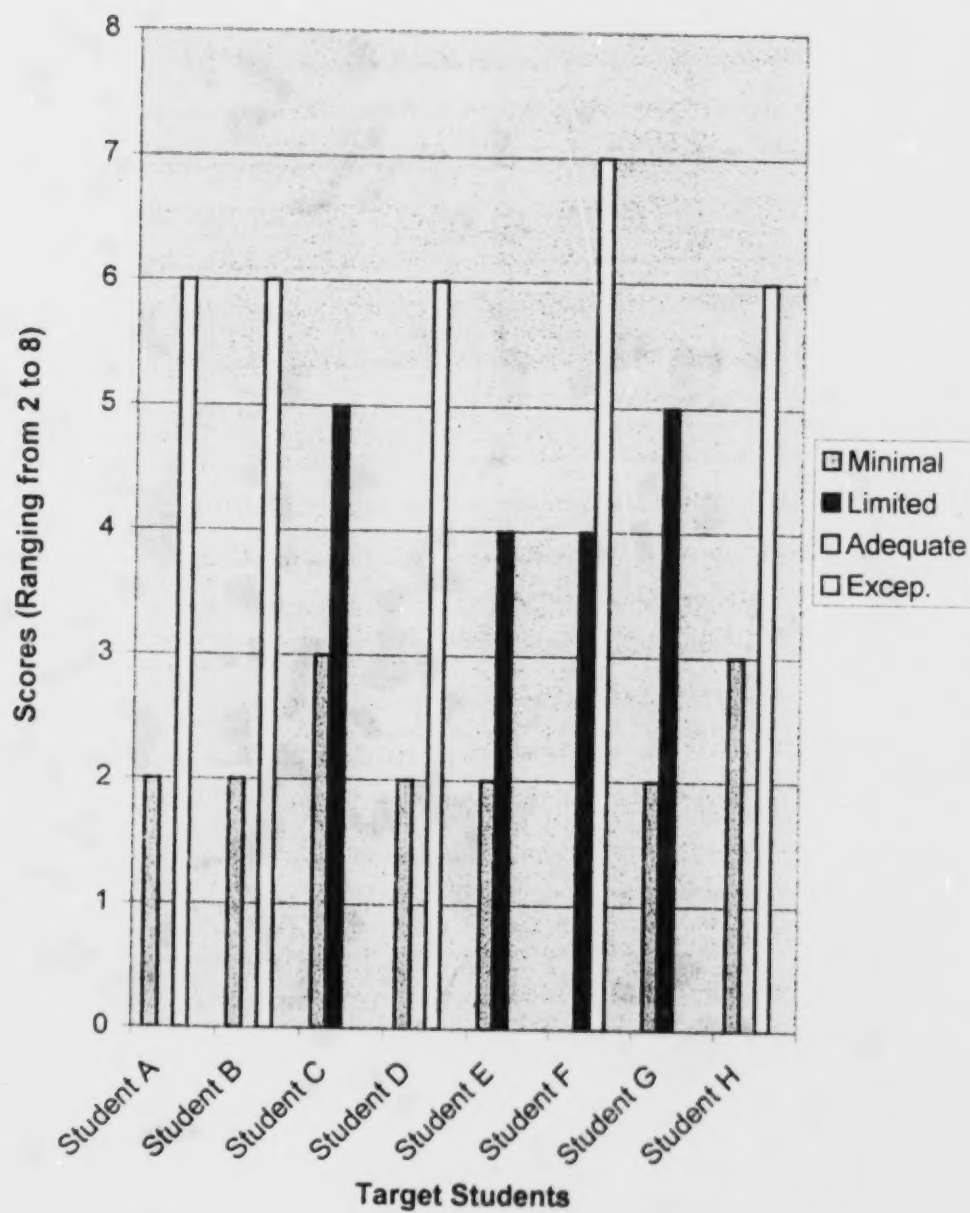
Appendix L
Narrative Writing Results

Appendix L

Pretest and Posttest Results
Narrative Writing Skills

Appendix M
Writing Composition Results

Appendix M

Pretest and Posttest Results
Writing Composition Skills

Appendix N
Writing Attitude Survey Results

Appendix N

Pre and Post Writing Attitude Survey Results

1. How do you feel when your teacher says that it is writing time?

	<u>Pretest</u>	<u>Posttest</u>
Positive	37.5%	100%
Negative	62.5%	0%

Students used words such as: good, happy, nervous, afraid, scared, grumpy.

2. Do you like to write?

	<u>Pretest</u>	<u>Posttest</u>
Yes	50%	100%
No	25%	0%
Sometimes	25%	0%

Selected reasons given: "Because I like to write." "Because it is fun." "I can use my imagination." "I am usually the first one finished." "I like to use the computers." "I like to use the graphic organizers." "Because I do not write good." "Because my hand gets tired and hurts." "Because I don't have enough time to finish." "Because it is hard for me."

3. Do you like the teacher to give you a topic or do you like to decide on a topic yourself?

	<u>Pretest</u>	<u>Posttest</u>
Teacher-given	0%	25%
Student-selected	100%	75%

Selected reasons given: Teacher-given - "Because I can't decide." "It is easier because the teacher is the one who thinks it." Student-selected - "Because I like to write whatever I want." "I like to make my own choices and decisions." "Because it is not as much work." "I can make it more special and interesting." "Because I like what I think." "Because I can write on things I like."

4. What tools do you use to write?

	<u>Pretest</u>	<u>Posttest</u>
Computer	0%	0%
Pencil and Paper	100%	0%
Both	0%	100%

4. How would you describe yourself as a writer?

	<u>Pretest</u>	<u>Posttest</u>
Great	0%	62.5%
Good	62.5%	37.5%
OK	25.0%	0%
Not Good	12.5%	0%

5. Do you think you could write better than you do?

	<u>Pretest</u>	<u>Posttest</u>
Yes	87.5%	100%
No	12.5%	0%

Appendix O
Software Evaluation Form

